The University of Melbourne

Thresholds for resilience in regional cotton communities

Final Project Report June 2020
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Report on synthesis of research results and strategic actions recommendations for strategic actions by the cotton sector
Outcome: Strategies identified to improve the resilience and adaptability of regional communities upon which the cotton farmers and the cotton industry relies.

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Abbreviations

CA – Cotton Australia

CRDC – Cotton Research and Development Corporation

MDBA/ MDBC – Murray Darling Basin Authority/ Commission

NSW DPI – New South Wales Department of Primary Industries

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Executive Summary

The Australian cotton industry and communities in regions where cotton is grown will continue to experience change challenges associated with drought and water policy, population dynamics, technology adoption and other ongoing growth and decline transitions into the future. Considering the attendant social, ecological and economic impacts of these and other challenges, the cotton industry's social licence to operate is an important asset for ensuring the industry's sustainability.

The cotton industry's sustained performance in this dynamic environment depends on the skills and capacities of the agricultural and general service sectors, and of the regional communities where the industry is located. Supporting community resilience and adaptive capacity in these regions aligns with the industry's key strategic interests, including in: Workforce (attracting and retaining people and skills to regional towns), Networks (strong networks within the industry and with other sectors); and Communication (stakeholder engagement and maintaining the cotton industry's social licence).

This research project was funded by the Cotton Research and Development Corporation (CRDC) to understand what makes regional communities adaptive and resilient, and how the sector can contribute to supporting community resilience and adaptive capacity in cotton growing regions.

The project conducted three resilience assessments with community and cotton sector stakeholders in the regional towns of Goondiwindi, Warren and Walgett. The assessment process helped to define potential roles for the cotton industry, local and state government bodies, and other regional bodies in supporting community resilience. Together with the research participants, the project identified localised opportunities for action, including:

- Improving networks, communication, and opportunities for new partnerships and decision-making at regional community, cross-industry and local government levels;
- Establishing local/regional think tanks and forums for community organisations, cross-industry groups and business owners;
- Pursing a fulltime grant writing and project management position located in council to assist with the management of and attaining funding for regional resilience building initiatives;
- Pursuing funding for and running capacity building training for grant writing; marketing; leadership, advocacy, community-level governance skills ;
- Strengthening local/regional cross-industry agricultural skills training capacities;
- Environmental groups working with council and education institutions to raise profile of environmental assets and environmental education opportunities

The tailored Resilience Assessment Workbook that resulted from this process is a capacity building tool that can be applied by other regional communities and groups grappling with complex change challenges that require collaborative action for an adaptive response. The workbook further presents a valuable tool for the cotton industry's cross-sectoral stakeholder engagement and is adaptable to internal use to aid industry strategic planning.

While the resilience assessment itself was conducted at the local/regional community level, the process has delivered strategic level planning recommendations to the cotton industry, including a concept plan for extending the Workbook to other regional communities and groups (councils, state government agencies, regional NRM, cross-sectoral partners).

Resilience requires sustained collaborative action and the key recommendations to the cotton industry from the project are:

- **Proactive engagement** of cotton sector organisations (for example, CRDC and Cotton Australia through Cotton Info and Cotton Grower Associations) with a diversity of local, regional and interregional stakeholders (e.g. councils, community organisations, cross-industry and local business owner groups, environmental organisations) will enable the industry to better understand stakeholders, lead conversations and build trust, and **strengthen the industry's advocacy and influence** at policy level by allowing more direct representation of stakeholder perspectives and needs.
- **Conduct a stocktake assessment of internal industry capacity** in diverse stakeholder engagement and relationship building, networks and knowledge brokerage, and strategic and internal industry communication, with a view to expand training and capacities. This can advance the industry's existing engagement and broker roles.
- **Further support the resilience assessments begun in Warren and Walgett.** This can be achieved by continuing regional conversations around community resilience and what type of intervention may be needed at higher levels. While resilience action needs to be community driven, it requires coordination, facilitation and ongoing engagement. It will be important for the industry to maintain momentum and trust in the emerging community relationships by building on the action research of this project.
- **Share, and broker a handover of, the resilience workbook** (CRDC assisted by Cotton Australia and Cotton Info) with other communities, councils, industry and regional bodies, for example by building on interest and networks generated by the progressing resilience assessments in Warren and Walgett (MDBA, NSW DPI, North West Plains Sustainability Group and others). This will assist the cotton industry to:
- **Strengthen existing and build new partnerships**. In doing this, joint strategic investments around shared interests and pursuing collaborative grant opportunities with regional and state-level bodies will position the cotton industry as a community-engaged industry and leader in regional resilience. An avenue for this is the recently announced 'drought resilience fund' of the federal government to involve state governments, local councils and researchers.

In conclusion, through progressing these recommendations, the cotton industry will be better placed to build on existing strengths and capacities to improve industry social licence and support community resilience.

Glossary of terms

Change Challenge This describes the specific situation faced by a community or group. This situation may appear simple and straight forward or may result from interacting factors or situations but it is assumed that in order to achieve improvement, this situation involves some significant and challenging change.

Desired Change The type of change a community or group wants to occur. Determining the desired change involves collective assessment of the change challenge faced, possible pathways to change, along with collective decision-making processes around the most desired change and pathways.

Resilience Resilience as a key concept has been variously interpreted in different contexts. One generally accepted definition of resilience is the capacity of a system (a community, industry, region etc.) to absorb shocks, to avoid crossing a threshold into an alternate and possibly irreversible new state, and to regenerate after disturbance. [1]

Specified resilience Specified resilience typically relates to specific (known) threats and shocks, such as droughts, bushfires or changing market scenarios. A linked idea is that parts of a system can be managed in ways that increase the system's resilience to particular kinds of disturbance and allow it to stay within a 'safe operating space'. [2]

General resilience General resilience is a property of the system as a whole and does not focus on any particular disturbance or part of the system. While both specified and general resilience are important for the capacity to respond to challenges, making and understanding their distinction is equally crucial. For example, managing for the resilience of a particular part of the system can negatively affect the resilience of other parts or the whole system.[1]

Community Resilience This project focused on community resilience over individual resilience. While individual mental health and well-being are important aspects that may play into the collective ability of a group to deal with change, the community resilience approach emphasises the existing social capacity of a community, their combined skills, knowledge and connections, their ability to self-organise, and their access to resources and capacities that enable their response to change challenges. In considering the economic, institutional and social dimensions of resilience, the community resilience approach encompasses individual resilience as embedded in the larger system.

Adaptive capacity Adaptive capacity is defined here as the ability of a community to change in ways that allow them to better manage actual, anticipated and unexpected change challenges. Importantly, adaptive capacity draws on multiple resources. These can be summarised as:

Institutional resources: local government, community or farming organisations, and other institutions

Physical resources: Infrastructure and services (roads, communications, health, education)

Natural Resources: Healthy and productive soil, water and landscapes

Financial resources: Business and household finances, access to financial assistance

Human resources: Mental and physical health, self-efficacy, skills, leadership, knowledge

Social resources: social networks with friends, family, other community members, business and cultural groups

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[1] Resilience Alliance (2010). Assessing socio-ecological Resilience: a Workbook for Practitioners. Version 2.0. https://www.resalliance.org/files/ResilienceAssessmentV2_2.pdf.

[2] Rockström, J., et al. (2009). "A safe operating space for humanity." <u>Nature</u> **461**: 472.

Introduction

This document provides a synthesis report on project activities and research results from the project 'Thresholds for Resilience in Regional Communities', which was funded by the Cotton Research and Development Corporation (CRDC) from July 2018 to June 2020 (Project ID: UM1902) and was conducted by researchers from the Rural Innovation Research Group in the School of Agriculture and Food at the University of Melbourne and one researcher in an advisory role from the University of New England Business School. The project complements a previous Resilience Assessment of the Australian Cotton Industry undertaken by CRDC in 2016 (BelTempo, 2016), by working with three regional communities in Warren, Walgett (NSW) and Goondiwindi (QLD) that rely on the cotton industry as a source of income. The project's action research approach involved the perspectives of community and other stakeholders in assessing and planning for regional resilience, using a tailored Resilience Assessment Workbook tool. The applied research approach fostered social networks and trained participants in the use of an iterative, adaptive resilience assessment process, which is a key output from this project (the Workbook). The research findings and recommendations assist the CRDC and the cotton sector to strategically plan for its future role in enacting the cotton sector's resilience for ongoing sustainable and productive growth and with the aim of strengthening the sector's capacity for innovation and adaptation.

Background to the project

The Australian cotton industry is located regionally, relying on the skills and organisational capacity of the agricultural and general service sectors, and of the regional communities the industry is embedded in. The resilience of these regional communities and the cotton industry has been persistently tested by a range of challenges over the years, including conditions of severe drought and changes to water policy, and more recently, the COVID-19 pandemic. Anticipated changes in energy generation, technology adoption and internet connectivity could significantly impact the future of regional communities and the cotton industry in both positive and negative ways. Alongside the attendant social, ecological and economic impacts (for example unemployment, regional depopulation, loss of services, loss of ecosystems) of these and other change challenges, the cotton industry's social licence to operate has come into focus in Australia, with potential further impacts on the industry. Resilience and adaptive capacity in cotton communities is an important asset for the cotton sector to reduce exposure to risks, improve social license and maintain access to resources including people and skills. Supporting the goals of building community resilience and adaptive capacity in regions where cotton is grown, therefore aligns with the cotton industry's strategic interests and directions (for example CRDC Strategic R&D Plan 2013–2018; Cotton Australia Strategic Plan 2018-2023; the Rebuilding Trust Strategy), particularly in the key strategic areas of: workforce (attracting, developing and retaining people; skills and knowledge; and leadership skills by supporting liveable regional towns and regions and by responding to cross-industry skill requirements of cotton growers running mixed-farming operations); networks (strong and durable networks within industry and other sectors; facilitation of community input to RD&E); and communication (engagement methods, stakeholder engagement and maintaining the cotton industry's social licence through active engagement with and support of local communities through advocacy).

Due to the nature of the Australian cotton industry and its experience of variable growing seasons, it is to be expected that the industry and communities in regions where cotton is grown will be experiencing both ongoing growth and decline transitions into the future. The cotton industry's successful performance and sustainability in this dynamic environment greatly depend on its capacity

to respond to both threats and opportunities (adaptive capacity). Enabling regional communities to respond to threats and maximise advantages from emerging opportunities will also benefit the cotton sector as a whole and as the industry experiences different transitions. It is therefore important for the sector to understand what makes communities vulnerable, adaptive and resilient.

The Cotton Research and Development Corporation (CRDC) previously commissioned a resilience assessment of the Australian cotton industry at multiple scales (BelTempo, 2016). This assessment identified indicators of resilience as well as key drivers of change and shocks that have the potential to push the Australian cotton industry towards identified critical thresholds that, if crossed, will lead to significant changes in system dynamics. Examples of critical thresholds identified at multiple scales included water availability (farm scale), network connectivity (regional scale) and social licence (industry scale). As the community scale was not part of this assessment, the research project 'Thresholds for Resilience in Regional Communities' ('the project' in the following) focussed, first, on expanding understanding of regional resilience and adaptive capacity by contributing a community-based perspective.

The BelTempo assessment report (2016) proposed a range of interventions to assist the Australian cotton industry to prioritise actions through directed investment. Importantly, the authors of the report note that these suggested interventions do not deliver an action plan but rather present a starting point for discussions (BelTempo 2016, 61). They acknowledge that the design and implementation of adaptive management actions must be part of the resilience assessment process. The second focus of the current project's research was therefore the development of such an extended resilience assessment process by drawing on templates for collaborative and adaptive processes as outlined by the Resilience Alliance workbook for Practitioners (Resilience Alliance, 2010) and the research team's previous work with the Australian Dairy industry (Ayre and Nettle, 2017, Rural Innovation Research Group /Dairy Australia, 2013).

Drawing from more than a decade of work with rural and regional communities and agricultural industries by the Rural Innovation Research Group, and the group's combined expertise in resilience scholarship and applied practice, the project approached the concept of community resilience as a process of adaptive learning and from the perspective of community access to resources of adaptive capacity (Schirmer and Corocher, 2018). In addition to the availability of physical, institutional, financial and natural resources, New South Wales farmers surveyed in 2015 considered their access to human (i.e. a sense of wellbeing and self-efficacy) and social resources (i.e. family, friends and community networks) as central to their individual resilience (Schirmer and Hanigan, 2015). Similarly, community resilience is collectively anchored in the capacity to access and make use of these adaptive resources. A community's sense of its resilience and well-being is both complex and highly dynamic with changing circumstances. It depends on perceived and actual levels of active community participation in and ownership of decision-making, their level of influence and trust in local governance. These elements of community resilience are emergent with processes of engagement and are not easily captured b quantitative approaches attempting to measure resilience as an outcome at a given point in time (Faulkner et al., 2018).

This project therefore emphasised an understanding of resilience as adaptive capacity defined as the ability of a community to change in ways that allow them to better manage current, anticipated and unexpected change challenges, through their ability to draw on the six resilience resources (human, social, physical, institutional, financial and natural) and to adaptively learn from collective experiences. Towards these aims, the project used a participatory resilience assessment approach designed to collaborate with community and industry stakeholders, in order to gain a better understanding of the non-quantifiable, dynamic aspects of community resilience and to identify what affects the resilience

of communities connected to the cotton sector. By using and refining a Resilience Assessment process (the Workbook), the project engaged with three regional communities in Walgett, Warren (NSW) and Goondiwindi (QLD) with the aim to collaboratively assess community capacity to respond to challenges, and to identify and enact opportunities for adaptation.

The research findings resulting from implementing the Workbook process with the three case study communities provide guidance to potential cotton industry contributions to improving the resilience of regional communities upon which the industry relies. The Workbook tool itself provides a process for communities and other interest groups to collaborate effectively towards building capacity to adapt and implementing positive change. The tool is a central output from the research and will be provided as a resource to participating communities and on the CRDC website. Recommended actions to facilitate the extension of research findings and the Workbook tool have been compiled together with industry stakeholders and are detailed in this report.

Research objectives

The objectives and outcomes specified for this research project were designed with the aim of identifying strategies designed to improve the resilience or adaptability of regional communities upon which cotton farmers and the cotton industry rely. In detail, the project and its applied action research approach was designed to work together with community and industry stakeholders towards achieving the following goals and objectives:

Goals and objectives

- To identify three case study communities, encompassing regional industry and community stakeholders, that will most benefit from participating in the research and resilience assessment process;
- To better understand the social aspects of community resilience by drawing on a community perspective;
- To identify current and potential future challenges affecting the resilience of the cotton sector and communities;
- To develop a Resilience Assessment Workbook together with these communities to design actions needed to generate the 'general resilience' and 'adaptive capacity' of these communities in practice;
- To identify response options together with communities, and enact opportunities for adapting to change impacts;
- To help to embed the Resilience Assessment Workbook as an ongoing assessment tool in the practice of communities, industry and other stakeholders;
- To ensure that local/ regional relevance and applicability are built into the design of the assessment process and suggested actions
- To provide guidance for potential cotton industry contributions to improving the (general) resilience of regional communities.

The research process was structured into three phases around the three key research questions (see detailed research plan in the appendix):

- Which regional communities are most critical to the cotton sector and would most benefit from participating?

- What are critical processes, threats and opportunities that impact the resilience of cotton and regional communities together?
- How can the cotton sector progress strategies to improve resilience of reginal communities in their strategic interest? What are role/s and responsibilities of others?

Each phase involved significant engagement with cotton sector and community stakeholders around the project aims. This strong engagement element of the research generated additional outcomes towards improved understanding of resilience concepts, building collaborative and leadership skills, and strengthening local and regional networks.

Resilience in this project

This chapter briefly outlines key directions in resilience thinking as a background to understanding the concept of Community Resilience used in this research and how it informed this project's applied, participatory and community-engaged approach to assessing the resilience of regional cotton communities.

Key directions in resilience thinking

The concept of resilience provides a widely used framework for understanding and responding to the dynamics of change in complex adaptive systems, including

> **Key points for understanding resilience**
>
> Resilience is the capacity of a system to absorb shocks, to avoid crossing a threshold into an alternate and possibly irreversible new state, and to regenerate after disturbance (Resilience Alliance, 2010).
>
> Resilience thinking is systems thinking – it accepts unpredictability and includes humans in the system rather than outside managers.
>
> Managing for resilience has the capacity to create options for change.
>
> Resilience is key to sustainability in complex social-ecological systems.
>
> Adaptive capacity describes the capacity of systems to adapt with change by successfully responding to consequences and taking advantage of opportunities.
>
> Community resilience is constituted by 'the existence, development and engagement of community resources by community members to thrive in an environment characterized by change, uncertainty, unpredictability and surprise' (Magis, 2010, 402)

ecological and social systems. One generally accepted definition of resilience is the capacity of a system (an ecosystem, community, industry, region etc.) *to absorb shocks, to avoid crossing a threshold into an alternate and possibly irreversible new state, and to regenerate after disturbance* (Resilience Alliance, 2010). However, interpretations of resilience and its related concepts have proliferated depending on the contexts of their usage and application in different academic disciplines and in policy practice. In particular, the concept's movement from its origins in ecology to its increased application in social contexts, has led to a conceptual vagueness with implications for how resilience as a concept and framework for action is operationalised (Davidson et al., 2016, Brand and Jax, 2007).

For example, key theoretical strands of conceptualising resilience differ along their emphasis on a system's resistance in the face of disturbance and bounce-back to its original stable state (i.e. engineering resilience); on understanding systems dynamics and adaptive capacity (ecological resilience and social-ecological systems resilience); and individual resourcefulness, optimism, adaptability and other personal characteristics in the literature on psychological resilience. Increasingly, specialised directions such as Disaster Risk Resilience and Community Resilience integrate concepts and understanding from across these disciplinary approaches. In particular, the evolving social science-based resilience literature points to the need to improve understanding of the 'social' in social-ecological resilience (Cote and Nightingale, 2012b), and to assimilate insights from cognate fields, including community development in the emergent field of Community Resilience (Ross and Berkes, 2014, Cavaye and Ross, 2019, Vaneeckhaute et al., 2017). This includes that critical

attention is paid to how vulnerabilities based in social and environmental injustices, a community's sense of powerlessness and resultant disengagement, and how general societal structures and cultural narratives can negatively affect resilience outcomes, particularly where they restrict participation, knowledge sharing and innovation, and therefore, adaptive capacity (Vale, 2014, Holling, 2001, Chandler, 2014). Accordingly, more attention is being paid to concepts such as 'empowerment' and 'enactments' of resilience or how operationalisations social-ecological resilience can be improved in practice (Ayre and Nettle, 2017, Nettle et al., 2015). Nonetheless, a lack of consensus on the concept's meaning resulting from multiple definitions remains, especially in the way resilience is used and interpreted by policy makers, a confusion that often prevents consensus on a common set of goals and actions supporting resilience in practice (Davidson et al., 2016). This section briefly outlines the main directions in resilience thinking to delineate key differences in definition and approach before summarising the key tenets of Community Resilience that guided this research.

Engineering resilience

Resilience thinking originates in the field of ecology (Holling, 1973). The concept has been evolving and acquired a variety of different meanings, some of which tend to persist in different theoretical iterations of the concept and across a range of disciplinary contexts (i.e. social, economic). In classic equilibrium ecology, the concept describes a system's resistance to disturbance and the speed of its 'bounce back' to a stable state system characterised by predictability. This conception shares similarities with the field of mechanics and engineering, where it applies to the resilience of a material, its ability to bounce back to its original form. It has led to perceptions of resilience as something that can be engineered for robustness, if critical input and output variables (the kinds and ranges of disturbances and shocks) are known. As designed resilience it is also commonly called engineering resilience.

Ecological resilience

Ecological systems thinking, on the other hand, acknowledges the complexity and unpredictability of ecological system interactions, and incorporates notions of multiple equilibria and dynamic change as central to a system's adaptive capacity to stay within certain change thresholds (Holling, 1996). Such a systemic understanding of resilience is called ecological resilience. Ecological resilience theory provides a number of analytical models and concepts that are also useful for understanding system dynamics, such as the adaptive cycle (Folke 2006), the heuristic of the 'basins of attraction' (Walker et al 2006) and attributes of resilience such as diversity, redundancy and modularity. The concept of 'panarchy', describing how changes at different scales interact and influence each other, is another important key concept of systemic resilience thinking (Gunderson and Holling, 2002) that is also influential in social-ecological systems resilience.

Social-ecological resilience

Social-ecological systems (SES) resilience explicitly recognises the complex, uncertain and unpredictable nature of self-organising and interacting social and ecological systems (SES) (Folke et al. 2010). This view challenges the idea that system order can be imposed by an external authority, and instead, recognises the availability of multiple possible trajectories of change that, in social systems, can lead to social innovation through the application of pluralistic knowledge, social learning and participatory governance for adaptation (Chandler, 2014).

Agricultural systems are social-ecological systems wherein social, economic and biophysical domains are interlinked and interact with each other. Such systems are also described as complex adaptive and self-organising systems (Holling, 2001, Gunderson and Holling, 2002). In addition to a number of key

attributes that characterise the resilience of a social-ecological system (Walker and Salt, 2006), such as redundancy, diversity, modularity, more explicitly social attributes have been emerging from the two disciplinary fields of social-ecological systems thinking (Fazey et al., 2007, Berkes and Ross, 2012) and social psychology and health sciences (Maclean et al., 2014, Cote and Nightingale, 2012a, Cuthill et al., 2008, Buikstra et al., 2010b).

Specified resilience, thresholds and general resilience

However, despite the widely accepted social-ecological systems approach, notions of resilience as stability tend to persist in everyday discourse, and particularly where stability or permanence of a system appears as desirable. In such contexts, resilience concepts are often applied to *engineer* social or economic dynamics or to manipulate system variables in order to 'enhance' or stabilise the resilience of a system. Measuring resilience with precise metrics and prescribing universal indicators therefore is tempting in these contexts where benchmark reporting is paramount.

The identification of 'thresholds' or 'tipping points' to change is expected to aid management of a system in ways that allows it to keep a distance to these thresholds and therefore stay within a 'safe operating space' (Rockström et al., 2009). Similarly, and with particular relevance to threats and shocks (sudden disturbances), particular parts of a system can be managed in ways that increase their resilience to particular kinds of disturbance. This type of resilience is called 'specified resilience'(Resilience Alliance, 2010, Walker and Salt, 2012). However, complex social-ecological systems operate at different scales and across social, economic, and ecological (biophysical) domains. This means that thresholds can occur in each domain and at different scales, adding to the complexity of management decisions (Walker and Salt 2012, 68). Just as thresholds to change are dynamic with time and across scales, the resilience of a social/ social-ecological system changes with a range of contextual factors, including time, place, and social histories and other social-psychological dynamics. Thresholds or tipping points are therefore not always predictable but may only become apparent retrospectively. Meanwhile, social scientists have noted that the social tends to be overlooked in social-ecological systems thinking and advise against the attempt to 'freeze' resilience as a measurable output (Ross and Berkes, 2014, Cuthill et al., 2008, Ostrom, 2009). Instead, they emphasise conceptualisations of resilience as emergent from social learning and participatory governance processes. This is where the innovative and transformative potential of resilience thinking lies (Fazey et al., 2007)

'General resilience', on the other hand, is a property of the system as a whole and does not consider any particular kind of disturbance nor any particular part of the system. 'Thresholds can move' (Walker and Salt, 2012, 9), and while they are important in helping define actions for maintain a 'safe operating space', this type of specific resilience depends on and will affect the general capacity of a system to adapt to change. Or in other words, a generally resilient system may be better equipped to adapt with dynamic, shifting thresholds. The resilience of a coupled social-ecological system (both general and specified) can therefore not be understood as an endpoint but needs to be perceived as an ongoing process of learning and adaptation, enabled by appropriate access to resources and decision-making processes. Importantly, resilience, as Walker and Salt (2012, 3) observe, 'is not about not changing', just as it is 'not about knowing everything'. It is however about the ability to embrace change, to be able to adapt and transform, and keeping 'options open' (91). General resilience therefore strongly dependent on a system's capacity to adapt and is defined as "the degree to which a complex adaptive system is capable of self-organization … and … can build capacity for learning and adaptation" (Adger et al., 2005, 1036).

Psychological Resilience

Another strand of conceptualising resilience can be found in the literature of psychology research. in In this field, resilience has similarly been variously defined and is operationalized in practice in a variety of ways (Kaplan, 1999). Fletcher and Sarkar (2013) distinguish two components of definitions in the literature around first, the ability to cope with adversity and second, the ability to adapt and learn from (positive and negative) experiences in positive ways. Similarly, individual, psychological resilience is often conceptualised as either a (personal) trait or a process, constituted in the interaction between individual psychological characteristics (or resources) within the context of stress or adversity. In this perspective, a person's resilience depends on their ability to access and draw on key psychological resources (such as a positive outlook, self-esteem, sense of self-efficacy etc) in order to cope with and adapt to adversity in positive ways (Windle et al., 2008). While individual psychological resilience was not a focus of this research on community resilience, it is recognised that individual and community resilience are co-constitutive: community resilience is characterised by the ability to draw on individual as well as collective resilience resources, both tangible (access to education and health services, employment, housing, good governance) and intangible (psychological), including a sense of possibility, self-efficacy, social connections, sense of belonging (Vaneeckhaute et al., 2017, Buikstra et al., 2010a, Cavaye and Ross, 2019, Imperiale and Vanclay, 2016). The resources of resilience are discussed in the next section in the context of adaptive capacity.

Adaptive capacity

Adaptive capacity describes the capacity of systems (institutions, communities etc) to adjust to or adapt with change by successfully responding to consequences and taking advantage of opportunities. This response may require that the system modify or change its characteristics or behaviour (Brooks, 2003, 8). A system's adaptive capacity can therefore be defined as a set of mechanisms that contribute to building system resilience. In social systems, adaptive capacities refer to people's knowledge, practices and skills as well as institutional structures that enable individuals and groups to successfully respond to environmental, social and socio-economic changes. An assessment of a community's adaptive capacity, then, examines the community's ability to take action by drawing on its 'resources for adaptation' (Maguire and Cartwright, 2008, 21). The adaptive capacity approach argues that a person's or a community's capacity to adapt to change depends on their access to such resilience resources, including financial, human, social, physical and natural resources (Schirmer and Hanigan 2015).

Resilience resources (Figure 1) supporting adaptive capacity are resources that enable individuals and communities to respond to challenges and threats, and to take advantage of opportunities. The resilience resources framework draws on the related Community Capitals Framework (Emery and Flora, 2006, Pigg et al., 2013). The level of a community's (or individual's) adaptive capacity is defined by the degree of access to and influence over these resources or capitals people have.
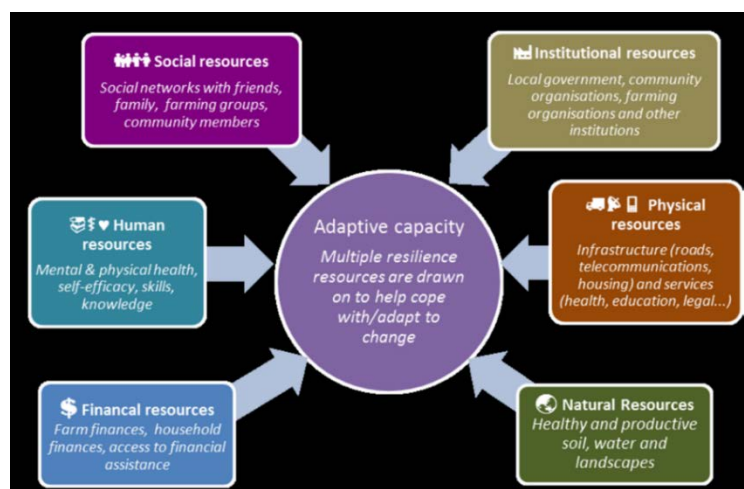

Figure 1: Resources of adaptive capacity (Schirmer and Hanigan, 2015)

Resilience resources include (Schirmer and Corocher, 2018)**:**

Financial resources (economic resources) are monetary and non-monetary resources that enable a person to maintain or improve their standard of living, and to access shelter, food and essential goods and services.

Human resources (sometimes called 'human capital') are individual resources such as health, education, skills and psychological resources (e.g. having a strong sense of self-efficacy or optimism) that influence the ability to successfully adapt to change.

Social resources (social connections, social cohesion, sense of belonging) are a critical source of support, knowledge and access to broader resources that enable adaptation to change. There is a strong link to human resources.

Institutional resources (good governance structures, strong organisations) that provide equitable and transparent governance structures, good leadership and representation, participation and inclusive decision-making are fundamental to enabling adaptive capacity.

Physical resources, such as the availability of infrastructure (roads, internet), access to services (education and health) and a safe, liveable environment support general well-being and adaptive capacity.

Natural resources ('natural capital', including environmental health, natural resources, healthy soil, air and water) refer to having access to natural resources that can be used to produce goods and services and impact human resources such as health and well-being.

Community Resilience

This project focused on understanding the factors shaping the adaptive capacity of communities in regions where cotton is grown, with the aim of strengthening their general resilience to both known and unknown, current and future change challenges.

On Community: Just as there are many interpretations and applications of the concept of 'resilience', questions of what a community is, or is not, have been variously debated particularly in the context of community resilience research (Mulligan et al., 2016, Cottrell, 2005). Definitions of 'a community' as an assumed unit can be problematic and need to be reflected upon when delineating the system (the community) under investigation. For example, social researchers have argued that some resilience studies have a tendency to typify ideas of "community" and "the local" as homogenous entities, and lack attention to the dynamics of power relationships and human agency (Davidson et al., 2016, Fabinyi et al., 2014, Sinclair et al., 2017). It must be acknowledged that 'community' is not a given unit, nor can it be assumed to share in similar interests, experiences or even cultural backgrounds. Instead, a community must be understood as multilayered, dynamic and constantly emerging (Stehlik, 2006, Rickards et al., 2019). This project worked with the concept of a 'community of place', that is, the communities chosen for this research were located in and around the regional towns of Warren, Walgett and Goondiwindi. While the impetus for this research was the Cotton RDC's interest in gaining a community-based perspective on what makes a community resilient and how the cotton sector could support regional resilience, the community participants recruited for this research were not assumed to partake in a 'community of interest' around interests specific to the cotton sector. Rather, every effort was undertaken to represent a diversity of community perspectives, interests and needs, and whereby research participants were brought together by the shared goal of improving their community's resilience.

Community resilience (CR), in the definition used in this research, is constituted by 'the existence, development and engagement of community resources by community members to thrive in an environment characterized by change, uncertainty, unpredictability and surprise' (Magis, 2010, 402). Magis (ibid.) further defines eight characteristics or dimensions of community resilience that emphasise both the complexity of CR and its operationalisation. These are: community resources, development of community resources, engagement of community resources, active agents, collective and strategic action, equity, and impact (the community's successful response to change). Community resources are natural, human, cultural, social, financial, built, and political resources or capital (institutional resources) (Magis, 2010, 410) and are aligned with the resources of adaptive capacity shown in Figure 1. The brief review of contributions to the community resilience literature, however, raises awareness for the complexity of the community resilience concept and evolving understandings in the literature.

While there is no single definition of community resilience, there are common themes:

- ability to prepare for, withstand and absorb disruptions [...]
- ability to adapt to changing conditions, including in the physical, social and economic environment
- ability to recover and continue to function and maintain self-sufficiency while under stress
- ability to 'build back better', improve over time and learn from previous experiences

From: Foundation for Rural and Regional Renewal (FRRR, 2017, 3)

Importantly, CR is not defined by the goal of achieving or maintaining community stability, nor are communities able to control all factors determining their situations. Rather, CR is about the combined individual and collective ability to respond to change. The recognition of a community's active agency and ability to take collective action presents a shift in resilience thinking that actively involves communities in developing adaptive change actions towards their own well-being as opposed to relegating them to a passive or receptive role, dependent on outside interventions (Berkes et al., 2003, Davidson et al., 2016, Maguire and Cartwright, 2008, Skerratt, 2013). Berkes and Seixas (2005) therefore stress capacity-building as an important element of resilience that enables communities to learn and adapt, but most importantly, to effect change, in contexts of change and uncertainty. Similarly, Magis (2010, 405) notes that 'capacity is necessary, but insufficient, for community resilience', as the latter requires 'impact' through actions taken.

It is in this context that Berkes and Ross (2013) accentuate the identification and development of community strengths, and the building of resilience through developing community agency and supporting self-organization. Notably, Harris et al. (2018) emphasise that resilience should not be understood as an outcome or a pre-defined state, but rather as a process requiring engagement with a diversity of people, and processes of negotiating values and interests. Such 'negotiated resilience', they argue, therefore requires the ability to collectively work through contestation as well as an openness to exploring diverse options. Opportunities and capacity for learning, skills in collaborative decision-making and governance, a shared sense of purpose and responsive leadership are therefore additional fundamental components of community resilience identified by Buikstra et al. (2010a). Transparency around vested interests by all actors involved and being mindful of existing inequities or power dynamics are arguably similarly essential in the contexts of negotiation (Sinclair et al., 2017). Focussing on capacity building and the operationalisation of CR, Cavaye and Ross (2019) and Vaneeckhaute et al. (2017) explore how practices and principles of community development processes can strengthen community resilience in practice. Finally, the importance of participatory, community-based approaches to understanding and assessing community resilience is now widely acknowledged (Ross and Berkes, 2014, Goldstein and Butler, 2012, Resilience Alliance, 2010), not least

as an avenue to building and enabling community capacity through learning, creating connections, networks and partnerships, and coordinating action (FRRR, 2017).

Indicators of resilience and adaptive capacity in this project

The debate on indicators of community resilience in the literature is diverse (Tyler et al., 2016, Doorn, 2017, Lew et al., 2016) and often driven by the aim to find standard measurements or benchmarks for assessing a community's resilience. Yet the identification of metrics and standards for measuring resilience remain a challenge (Cutter et al., 2010) and their usefulness or value contested (Rogers, 2013), not least because the outcomes oriented approach of finding indicators and measurements is at odds with the view of resilience as a process taken in the context of this research. Schirmer and Hanigan (2015) distinguish multiple indicators of resilience in relation to, 1. resilience outcomes, 2. exposure to change and 3. resilience resources. Indicators of community resilience resources identify the level of a community's access to the resources that enable capacity to adapt to change. In this project, a framework for *resilience resource indicators* (Table 1) was used to provide guidance in identifying gaps and opportunities emerging from the regional resilience assessments, while acknowledging this framework's limitations in capturing the full complexities of community resilience. Importantly, resilience outcomes and resilience resources interact in the adaptive process, whereby building and improving access to community resilience resources is considered simultaneously a necessary process element and a positive outcome.

Table 1: Examples of indicators of community access to resilience resources (adapted from Schirmer and Hanigan, 2015)

Resilience resource	Indicator description	Specific indicators
Financial resources	Community economic wellbeing/ the health of the local economy and the economic opportunities it provides in the form of affordable living, employment and business opportunities	Living costs (affordability) Local business activity Local job availability
Human resources	Community leadership and collaboration. Having strong community organisations with good leaders enables successful adaptation to change at the community scale.	Strong community leadership Strong community organisation Collective sense of self-efficacy (ability to achieve desired outcomes)
Social resources	Social resources include informal social connections (support from friends and family) and a strong sense of belonging to and engagement in the local community.	Time spent engaging in community activities Sense of belonging Social networks
Institutional resources	Institutional resources enable people in the community to work effectively and inclusively	Equity and inclusiveness Confidence in being able to have a say and be heard Confidence in ability to affect change collectively
Physical resources	Access to different types of infrastructure and services that enable adaptation to change and provide support in times of difficulty	Education, aged/childcare Roads and transport Professional services Safety of community Attractive places
Natural resources	Access to healthy natural resources and to pleasant landscape and natural areas	Healthy land, soil, water, Leisure landscapes

Methodology

The project applied an engaged action research approach (Altrichter et al., 2002) to conducting participatory resilience assessments in three case study regions. The workshop methodology was structured using a 7-step resilience assessment process based on similar frameworks (Resilience Alliance, 2010, Rural Innovation Research Group /Dairy Australia, 2013), and tailored to the specific historical and geographical contexts of the three case study communities in the cotton growing regions surrounding the towns of Warren, Walgett (NSW) and Goondiwindi (QLD). It is important to note that the approach applied in this project did not draw on quantitative measures of resilience but that each resilience assessment process delivered a specific, contextually situated and applied assessment of a regional community's resilience via a process of collecting, organising and analysing information about the community together with members of that community. It has long been acknowledged that community members themselves are best placed to provide understanding of their community, the collective challenges faced, and of the community's level of access to adaptive resources and capacities. Community stakeholder engagement in participatory research is therefore considered essential in the process of community-based resilience assessments (Maguire and Cartwright, 2008, 16), not least as the participatory process generates capacity building through: producing a diversity of perspectives and knowledge, improving the participants' understanding of the complexity of an issue or challenge, and linking up interest groups and creating new networks (Ross and Berkes, 2014).

This section outlines project governance, engagement and facilitation arrangements as important parts of the project's engaged, participatory research methodology, case study selection process and the Workbook methodology.

Project Advisory Panel

A Project Advisory Panel was established in November 2018 and agreed to connect via teleconferencing every two months over the duration of the research project. The Panel's purpose was to provide guidance and advice on key elements of the research project, including but not limited to:

- Contributing to the steps of the resilience assessment process, including definition of the focal system of this study
- Providing advice on case study selection
- Providing contacts for key stakeholders and information relating to existing sector specific initiatives supporting community resilience
- Providing response to project process reports and interim findings

Organisations represented through the Project Advisory Panel were:

- CRDC and Cotton Info
- Cotton Australia
- Grower Industry Panels (Griffiths and Emerald)
- Rural Innovation Research Group, The University of Melbourne
- Business School, University of New England (from mid-2019)

Case study selection

To ensure local, regional and community relevance of the resilience assessment conducted by the project, three case study communities based around regional towns were selected using a rigorous selection process. A pre-selection of suggested case study regions was made based on towns and regions represented in the previous resilience assessment (BelTempo 2016) and existing industry knowledge. This pre-selection included: Emerald; Goondiwindi; St George; Hillston; Wee Waa; Warren; Coleambally; Walgett; Griffiths; Western Downs; and Bourke.

The research team and Project Advisory Panel devised a table of selection criteria that enabled categorisation of towns and regions along key selection criteria, including:

- The extent of the communities' reliance on the cotton industry (diversity of industries and workforce structures, importance of cotton for regional employment, i.e. number of growers, land mass, amount of cotton grown)
- Communities that would benefit most from participating in resilience assessment and training.
- Severity of issues regarding water availability, and the regional impact of the Murray Darling Basin Plan
- Level of existing engagement, community-based initiatives and initiatives supporting resilience
- Expected industry and community willingness and ability to engage with the project
- Transferability of lessons learnt / representativeness of community
- Proximity to large regional centre (within 2 hrs)
- Existing infrastructure and services (water/ telecommunications/other)
- Demographics (town population/ 2016 census)

Goondiwindi (QLD), Warren and Walgett (NSW)

Following discussion of this pre-selection by the Project Advisory Panel, the main researcher and CRDC project manager further consulted with key contacts from across the sector, including CRDC, Cotton Australia and other regional and local contacts (for example, MDBA Regional Engagement Program) to further improve the understanding of important selection criteria and of the regions from a local and inside-industry perspective. This consultation process produced additional information and led to the selection of regional communities surrounding the towns of Goondiwindi (QLD), Warren and Walgett (NSW).

In selecting these three case studies using the key selection criteria, the Advisory Panel also considered representation of different current and historical experience of 'coping with change'. The Panel distinguished three phases:

1. Community has successfully coped with change/disruptions in the past (i.e. Goondiwindi)
2. Community is in transition following a key change/ disruption event (i.e. Warren)
3. Community is struggling with current changes/disruptions (i.e. Walgett)

In making this distinction, additional considerations for case selection included: the opportunity to share learning from past experiences with change and disruptions across different regional communities (1); the opportunity to understand how communities self-organise and what kind of support is needed as a community transitions into a new 'stable state' following change/disruption, as well as the opportunity to assist the community in this transition process (2); the opportunity to assist a community that is currently/acutely struggling with change impacts to self-organise, assess its strengths and weaknesses and find internal and external support mechanisms (3).

The case studies are briefly described in the results section.

Interviews

A small number of semi-structured interviews (n=12) was conducted in the early stages of the project and towards its completion. The first round of these interviews assisted the researcher in gaining a localised perspective of the suggested case study regions. Interview participants included community members, representatives from the cotton sector, and Murray Darling Basin Regional Engagement Officers. The second round of interviews with community and industry participants followed the completion of the second round of workshops and a final stakeholder meeting in early 2020. These interviews provided the opportunity for reflection on the project process and questions arising from the workshops and meetings.

Stakeholder analysis and engagement

As outlined in the section on Community Resilience above, the idea of 'community' itself can be a problematic construct. In approaching the concept of 'community' in this project, therefore, we acknowledge the multi-layered complexity, dynamism and potential conflict inherent in any community. When identifying community and industry-based stakeholders for this project's applied action research, we worked with the concept of a 'community of place' (i.e. a community based in around a regional town) over that of a community of interest (i.e. a community formed solely around shared interests in the cotton sector). Based on the consultations with members of the Project Advisory Panel and key regional and local contacts, the researcher compiled a list of local and regional stakeholders, aiming to represent diversity. Additional stakeholders and locally influential individuals were further identified by participants in the first focus group events and resilience workshops (in April 2019) as part of the methodology used (the Resilience Assessment Workbook).

Groups of identified stakeholders included:

- Cotton sector stakeholders (industry bodies, growers, advisors and consultants, agribusiness, retailers and supply chain, Cotton Grower Associations (CGAs))
- Regional Councils
- State government (i.e. NSW DPI; Health)
- Other agricultural businesses and local business representatives/ Chambers of Commerce
- Natural Resource Management and environmental organisations
- Regional bodies (i.e. MDBA Regional Engagement Officers)
- Indigenous organisations and community Elders
- Community and farming based organisations (i.e. WinCott, Country Women's Association, churches, community arts programs)
- Youth programs
- Individual community leaders and influencers

Local community facilitators

The hiring of local community facilitators who were well connected in the regions was an important part of the methodology used in this project.

Commencing participant engagement involved contacting identified stakeholders via e-mail, providing an outline of the project and its aims, as well as follow up phone calls inviting interested stakeholders to participate in a first workshop meeting. Local community facilitators were engaged to drive this

process locally. Their industry and community networks, local knowledge and personal contacts meant that these community facilitators had a pivotal role in stakeholder engagement for the project. As engagement professionals, they also facilitated the resilience assessment workshops and worked with the main researcher on their design and content to ensure local/regional relevance and engagement. In some cases, they provided a local point of contact and continued to connect the working groups beyond the workshop events. The role and function of a community facilitator was proven to be fundamental to the running of the Resilience Assessment process.

A detailed position description and approximate budget for a Community/Workbook facilitator has been included in the Resilience Assessment Workbook in the appendix.

The Resilience Assessment Process

The *Workbook for Supporting Change for Resilient Communities in Cotton Regions* (the Workbook) draws on a decade of work in resilience scholarship and in applied research and capacity building by the Rural Innovation Research Group (RIRG) at The University of Melbourne, combined with other resilience assessment frameworks (Cavaye, 2011, Maguire and Cartwright, 2008, Resilience Alliance, 2010). Specifically, it draws on an adaptation of the Workbook to an industry context delivered by RIRG in collaboration with the Australian dairy industry (Rural Innovation Research Group /Dairy Australia, 2013) and has been designed to support regional communities, change managers and other professional practice groups in cotton growing regions to address the challenges of managing change at a regional scale.

The purpose of the Workbook is to enable groups to understand and support changes occurring in their region due to particular social, environmental, and/or economic pressures. It outlines a practical and useful group process to guide potential collective action, how to work together, and coordinate responses to a challenge given different expectations, responsibilities and roles of stakeholders.

While the Workbook was piloted together with communities and other stakeholders in cotton growing regions, the workbook process is relevant and applicable outside the cotton sector. The process is primarily targeted at challenges facing regional and rural communities that rely on agriculture as key element of their regional economies. It has been tested with communities in regional (and remote) Australia in the context of a prolonged drought but it can be used at a range of scales and will be relevant in response to a number of social, environmental and economic challenges.

> Strategies to enhance community resilience have recently focused on **strength-based approaches, effective partnerships within communities** and **participatory research strategies** that engage communities in **reflexive learning processes**. [...]
>
> Most resilience [...] assessments are conducted in a workshop format which bring together various groups and interested parties. In these process-focused, bottom-up approaches to resilience assessment, **the assessment process is considered to be more important than the outcome**, as it is through bringing community stakeholders together and discussing the community's strengths and weaknesses that resilience is enhanced and plans for further action are made. Taking cultural diversity into account is important.
>
> From: Foundation for Rural and Regional Renewal (FRRR, 2017, 3)

The Resilience Assessment Workbook is designed to be used in a two-stage workshop process with the main objectives:

- To collectively assess a change challenge/issue faced by/within a cotton region.
- To collectively assess the capacity to support or achieve desired change within a cotton region.

- To develop a plan for initiating partnerships and actions to initiate actions towards supporting desired change within a cotton region.

The group process involves two workshops of approximately four to five hours each. Workshop A focuses on assessing the change challenge and identifying priority areas for action. Workshop B focuses on the capacity for achieving desired change within the identified priority areas, by identifying gaps that need to be addressed to meet the change challenge and identifying possible partnerships and tangible next steps for initiating actions towards supporting desired change. The workbook runs through the seven assessment steps represented in Figure 2 and provides a framework for action tool for recording tangible actions. Table 2 and Table 3 provide details of the workbook process, questions and approximate timings that were applicable in this project. A full version of the workbook is provided in the appendix to this report.

While underpinned by a theoretical framework drawn from resilience thinking, the Workbook is written in everyday language and only basic knowledge of resilience concepts is required.
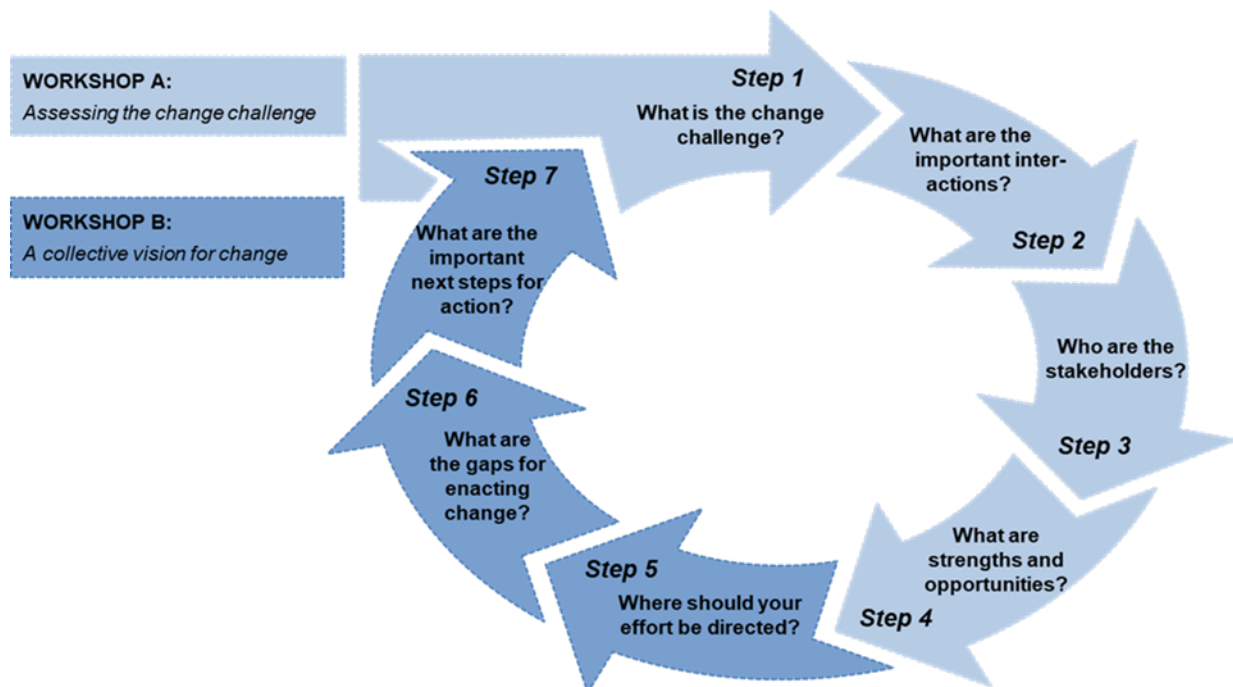

Figure 2: the seven steps of the resilience assessment process.

Table 2: Workshop A - Defining the 'challenge' and considering perspectives

STEP	ACTIVITIES
1. What are current issues or challenges we face?	Workbook tool A1: Defining the challenge(s) • What are the main issues involved in the challenge? • What are the boundaries to the challenge? (geographically, socially)
2. How are these challenges linked? What are the important interactions inside/outside the region?	Workbook tool A2: Assessing interactions • What are the main influences from larger-scale systems on your system? e.g. legislation, markets, climate, environmental/animal welfare organisations • What are the main interactions within the system that influence the challenge? e.g. Influence of local communities, farmers or farmer groups
3. Who are the stakeholders?	Workbook tool A3: Stakeholder assessment • Who are the stakeholders relevant to your challenge? • What are stakeholder perspectives and levels of influence? • What are their existing roles or interests?
4. What are strengths and opportunities?	Workbook tools A4-A7 (see below)
Understanding your community and strengths	Workbook tool A4: • Resilience indicators, community assets, inputs, and strengths. • What makes your community resilient? • What are the most important community assets and strengths?
What opportunities for action can we identify?	Workbook tool A5: Opportunities and gaps • How can these assets and strengths help your community with addressing key challenges or achieving positive change?
Where are the gaps and who can address them?	Workbook tools A5 and A6: • What is missing or where do you need support in developing an opportunity? • What needs to change and at what levels, i.e. who can act on this change? • Optional: Workbook tool A7: Mapping future scenarios (not used in this project)
Looking ahead	Plan the next workshop date/ stakeholders

Table 3: Workshop B – A collective vision and frameworks for action

STEP	ACTIVITIES
5. Where should our efforts be directed?	Workbook tool B1: Prioritising opportunities for action Workbook tool B2: Exploring the opportunities Workbook tool B4: Identifying incentives • List the opportunities or areas for action from the first workshop. Assess whether all participants agree with these opportunities. • What are the most important opportunities/ priority areas for action? • Vote for the 3 most important action areas but keep a record of all opportunities as some may need to be explored further.
Optional (not used in this project)	Workbook tool B3: Ranking your change scenarios

STEP	ACTIVITIES
	Workbook tool B5: Assessing awareness
6. What are the enablers and gaps for enacting change?	Workbook tool B6-8: Reserves, Resources, Governance • (these tools were not used in this project, but the discussion reflected the question in Step 6)
7. What are the important next steps for action	Workbook tool B9: Planning your work together • Use Workbook tool B9 to develop a step-by-step roadmap towards change. What needs to happen so that actions can be progressed?
Looking ahead	How are you going to maintain momentum? • Consider convening a working group to coordinate follow-up meetings

Workshops and working groups

Regional resilience assessment workshops

Having identified, engaged and invited local and regional industry and community stakeholders together with the local community facilitators, the project team ran two workshops in each of the case study locations, one in April and a second one in November 2019. Each resilience assessment workshop was run as a half day event at local venues. An average number of 30-40 identified stakeholders per case study location were contacted in the lead up to each event and the events were on average attended by 12-15 participants each. Overall, an approximate number of 60-70 people participated across 2 workshop events and the 3 regions. Following each workshop, all participants were e-mailed a summary report of the workshop discussions and results and given the opportunity to provide feedback.

The workshop process was designed using an adapted version of individual steps from the Resilience Assessment Workbook. The first round of workshops used a selection of workbook tools designed to facilitate the assessments steps in Phase A:

• What are the change challenges faced? (step 1)
• What are important interactions between the challenges and other scales? (step 2)
• Who are the stakeholders? (step 3)
• What are local strengths and opportunities? (step 4)

The second round of workshops continued working with the results from workshop A and applied the tools designed to facilitate Phase B of the assessment process, including:

• defining priority areas for action (step 5),
• identifying gaps for enacting suggested change actions (step6), and
• developing a detailed framework for actions at community and higher scales and across medium to long-term timeframes (step 7).

In between workshop events, the researcher provided meeting summaries with locally relevant workshop results to the participants, inviting their feedback and additional input. It was a limitation of the project's overall time frame, budget and project management at a distance (with the researcher located in Melbourne) that workshops were spaced apart more than 6 months, during which time engagement and the ability to maintain connection with and between the working groups established at the workshop meetings was limited. Cotton sector staff was engaged during this time to assist in maintaining momentum.

Stakeholders represented at 2 workshops in April /November 2019 included:

Goondiwindi: MDBA Goondiwindi; Rural Sky Mental Health Service; Cotton Australia; growers and farmers (New Leaf Ag; Evolution Farming, Goondiwindi Cotton, Duddy Management; Corish Farms Pty Ltd; Fairfield Farming); Macintyre Valley CGA; Goondiwindi Argus; Goondiwindi Chamber of Commerce; InFarm Aerial Mapping; Waggamba Landcare; Namoi Cotton; Goondiwindi Shire Council; Hayes Spraying; Engage and Create Consulting

Walgett: Walgett Shire Council; Ulah Agribusiness P/L; AG Consultants; Greg Rummery Consulting Pty Ltd; Walgett CGA; farmers and growers; Northwest Plains Sustainability Group; WinCott Walgett; Kate's on Web (community development); Artesian Bore Water Users Association – Burren Junction; NSW DPI Rural Resilience Program; Cotton Australia; Cotton Info; Walgett CWA; Walgett Show; Walgett Spectator; CRDC; NW Community Arts and Cultural Hub; NSW Farmers.

Warren: Cotton Info; Kenmark Communications; Warren Shire Council; Cotton Australia, Macquarie Valley CGA; RiverSmart; Warren Presbyterian Church; Marthaguy Hall; Rural Adversity Mental Health Program – NSW Health; DPI Rural Resilience Program; Barnados Social Services org/ Outback Arts; Young Life Australia/ Warren Area; Warren Catholic Church.

Final sector stakeholder meetings

Industry and cross-sector meeting

Following analysis of findings and frameworks for action developed at the regional resilience assessment workshops, the research team convened a final stakeholder meeting in April 2020 to present key project findings and to reflect on and describe the role the cotton industry and others (for example, local and state governments, other industry and regional bodies) can play in the resilience of regional communities. Additional aims of this workshop included the development of potential strategic action plans for the cotton industry and others to further support and build community resilience, and the identification of potential alliances and partners that the cotton industry and others can engage and work with to progress priority actions identified by the research and at this meeting. Participants were recruited based on their prior participation in the resilience assessment workshops and their strategic level roles in the organisations they represented at this meeting. This meeting had to be run as an online facilitated meeting due to travel restrictions and social distancing measures related to the Covid-19 pandemic. The meeting was attended by 16 participants and included high level representation of the Cotton Research and Development Corporation, Cotton Australia (including regional officers), Cotton Info, regional councils, the NSW DPI Resilience Program, Southern Cotton board, local facilitators and the wider research team.

Final industry meeting

A final meeting with top-level industry representatives was held online in May 2020 with representation from the Cotton Research and Development Corporation, Cotton Australia, Cotton Info and the University of Melbourne research team. The purpose of this meeting was to generate recommendations for potential strategic actions by the cotton industry to progress project outcomes, via a detailed introduction of the Resilience Assessment Workbook and the discussion of its value to and application by the cotton industry, communities and other organisations. Participants further discussed potential partnerships and pathways to aid the extension of the Workbook and its process.

Evaluation of the workshops

Asking participants to evaluate their experience of the workshop process and its usefulness (using a paper-based survey for the regional community workshops and an online-based survey for the online sector stakeholder meeting, see appendix) was an integral part of the project methodology that pursued several aims: to evaluate the overall value and usefulness of the Workbook process, to refine the process of the Workbook as needed, and to improve potential future workshops based on the data produced.

The two regional community workshops in each of the case study towns applied tools from part A (workshop 1) and part B (workshop 2) of the Resilience Assessment Workbook to structure the workshop interaction. At the end of each workshop, participants were asked to evaluate their experience, using the evaluation questionnaire provided as part of the Workbook. The survey consisted of 8 statements, each of which offered a response along a five-point Likert scale from 'Strongly disagree' to 'Strongly agree'. The survey received 35 responses (n=35) across all six workshops. In addition to providing space for individual comments, survey questions covered:

1. The overall value or usefulness of the process used.
2. The extent to which the process facilitated participants' understanding of the challenges discussed.
3. Whether the participants felt hat they were able to share knowledge and experience.
4. Whether participants were able to gain new information or ideas from other participants.
5. Whether they were able to gain useful insights for future resilience building activities.
6. The extent to which the process facilitated participants' thinking about local actions.
7. Whether they felt hopeful about instigating an action in their community or beyond.
8. Quality of workshop facilitation on the day.

The same or similar questions were asked of participants in the final sector stakeholder meeting, which was run online in April 2020. This meeting's purpose was to: present key project findings to participants who had participated in the earlier assessment workshops and/or represented their organisations at a strategic level (Cotton Australia, Cotton Info, Cotton Research and Development Corporation, local Councils (Warren and Walgett), cotton grower representatives, NSW DPI Resilience Program); to reflect on and describe the role the cotton industry can play in the resilience of regional communities; to develop strategic actions that the cotton industry can take to further support community resilience; and to identify potential alliances and partners that the cotton industry can engage with and work with to progress the priority strategic actions. This meeting had initially been planned to run as a half day workshop but due to unfolding the COVID-19 pandemic, had to be run as a one hour online-meeting. In addition to the evaluative questions used in the assessment workshops, this post-meeting survey (online, using the Survey Monkey platform) therefore pursued a slightly different purpose to the evaluation of the assessment process: questions aimed to provide participants with the opportunity to make any comments that could not be addressed during the short meeting and addressed specific discussion points from that meeting. For example:

1. Were there any ideas/ concepts that concern you or that excite/surprise you?
2. Which ideas for actions (1 or 2) are you willing and able to commit to support?
3. What would need to happen to progress this?
4. How can you contribute to progressing this? (i.e. what are you going to commit to doing in the next month?)

Similar to the assessment evaluation questionnaires, the online survey also offered scope for participants individual comments (n=7).

Summary of Results

This section provides a synthesis of research findings across all levels of research. First, key findings from the overall research are outlined. These cover general insights emerging from the project methodology and processes, including project governance, resilience assessments, interviews and final sector stakeholder discussions. The second section presents a summary of the resilience assessments that were conducted with stakeholders in each of the case study regions. This section includes key challenges identified by participants in each of the regions; priority areas for action and key actions developed by workshop participants as part of the 'framework for action' tool in the second workshop. Detailed assessment reports are provided in the appendix to this report. Detailed findings pertaining to the Workbook process itself are discussed in the third section.

Key findings

1. Resilience requires sustained collaborative action across scales

The research data confirm insights from the literature on community resilience that actions, programs and initiatives building general resilience need to exceed ad hoc crisis response. Supporting and sustaining community resilience requires long term capacity building across scales and includes that attention is paid to a community's access to adaptive resources. In this way, increased community adaptive capacity and resilience enable communities to adapt to change transitions more generally, regardless of whether these are related to either socio-economic growth or decline, sudden shocks or long-term stresses.

Building community resilience and adaptive capacity is not the work or responsibility of just one organisation, nor of the communities alone. It requires multiple players and collaborative partnerships across sectors and scales (community and local business organisations, regional councils, state and federal governments and industry organisations). Resilience initiatives need to be coordinated, and continuity and follow-through actions are important to avoid frustration and disengagement on behalf of communities and their representatives. There is a role for all these organisations (not just cotton sector organisations) to help broker connections and collaborative partnerships, and to facilitate progressing actions at higher levels of governance that support regional community resilience.

2. Resilience action needs to be community driven but requires facilitation and enabling structures.

It is important that resilience initiatives are motivated by communities and are not perceived as top-down intervention by the cotton industry (or others). While there are brokerage and facilitation roles for stakeholder organisations at community as well as higher levels, the resilience assessment process itself requires community ownership from the ground up.

'The community needs a leg up to help establish hubs and initiatives'
(Walgett participant)

It is further important to support local/ regional talent, expertise and skills in the implementation of the Workbook process and any resulting resilience actions or initiatives.

3. The Resilience Assessment Workbook requires facilitation across all stages of the assessment process.

The Workbook provides a process for a 'way of working together' via an assessment of current challenges and opportunities faced by communities in cotton growing regions, and of existing community capacities to respond. However, its value as a tool is only activated in its enactment/implementation by communities and other groups working together. The findings from the action research with the three pilot communities have shown that the Workbook must be understood as a tool that is 'nested' within larger scales or structures. This means that using the Workbook to its full potential requires the facilitation of initiating and implementing the Workbook process at a community level, as well as interventions, brokerage and follow up actions at higher levels. For example, the Workbook process revealed the importance of building coalitions across sectors and scales, including community, industries, and governments, for achieving both aims of implementing the Workbook and progressing actions that arise from its process.

4. The Resilience Assessment Workbook is of value to the cotton industry and beyond the cotton sector

The Resilience Assessment Workbook produced by the research project provides a valuable process and a set of tools that facilitate collaborative responses to collective change challenges. The value of the Resilience Assessment Workbook produced by the research project lies in:

1. **Its Relevance and applicability beyond the cotton industry cotton:** The process offered by the Workbook is applicable across a range of contexts beyond the cotton industry and therefore might present a valuable resource to other industries, councils or regional bodies, that are grappling with complex challenges.
2. **A collaborative approach to complex challenges:** The workbook offers a common/standardised process to guide collaborative responses to complex current and future challenges faced by regional communities, councils, industries and regional bodies. The Workbook can act as a focus point for bringing people together and building coalitions across a range of scales and sectors
3. **Support of social licence:** The Workbook and its extension to communities and other interested bodies supports industry social licence by signalling the cotton industry's willingness to understand and support the communities and regions from where the industry's future workforce might be coming from. This social licence/legitimacy aspect also applies to the industry's relationships and conversations at regional levels, in supporting regional councils and others active in building regional resilience and adaptive capacity by sharing the Workbook, and at higher scales, including in policy conversations with government and natural resource management related bodies (for example: the MDBA, NSW DPI, the drought round table).

5. Supporting community resilience and adaptability is of strategic interest to the cotton industry and community resilience goals align with existing industry strategies

In exploring the key drivers of the cotton sector's interest in supporting community resilience together with industry representatives, the research revealed the existence of potential tensions between maintaining the industry's resilience and supporting community resilience. This is because the industry's efficiency and productivity targets significantly impact local labour markets and communities. However, supporting the goals of building community resilience and adaptive capacity in regions where cotton is grown, simultaneously aligns with the cotton industry's strategic interests

and directions (for example see Cotton Australia's Strategic Plan 2018-2023; the Rebuilding Trust Strategy), particularly in the areas of:

1. Attracting and retaining a highly skilled workforce:

   With growing technology adoption, the cotton sector increasingly needs to attract highly skilled labour into regional towns. The existence of attractive, vibrant and resilient towns will benefit the sector by helping it attract and retain the workforce and skills it requires.

2. Responding to cross sector or cross-industry skill requirements:

   Demands for agricultural technology skills are growing in many other rural, remote and regional industries as well. Many cotton growers maintain additional agricultural/ mixed-farming businesses. Providing local and regional training and education opportunities for a highly skilled, locally trained workforce will contribute to higher workforce retention rates and the creation of local employment and services for the communities where training and education providers are located.

3. **Building resilience and adaptive capacity** are about being able to adapt to different transitions related to both growth and decline. Enabling regional communities to respond to threats and maximise benefits from emerging opportunities will benefit the cotton sector as a whole and as the industry experiences different transitions.

4. **Maintaining the cotton industry's social licence to operate** is of strategic interest to the industry regardless of whether the industry, or a region, are in a growth or decline transition. The principles and goals involved in maintaining social licence are strongly aligned with community resilience principles and agendas, including active engagement with and support of local communities through advocacy and coalitions involving government, councils, and other industries, and the retention of a skilled local workforce and regional services.

6. The cotton industry can build on existing strengths and capacities to improve social licence and support community resilience

In supporting regional community resilience, the cotton sector can draw on existing strengths and capacities to support community resilience. For example:

1. **Advocacy:** The industry is already operating at an advocacy level with governments and across sectors. It can help articulate community issues at these higher levels in a productive way and can assist communities in linking up with the political realm.

2. **Cotton Info** have a significant role in resilience at an industry scale and many of their current functions could contribute to supporting resilience at the community scale. Cotton Info already have a broker role between different organisations and sectors. They have capacity to support building industry adaptive capacity (through fore-sighting and capturing industry memory) and to assist in finding solutions to problems. The community scale is not currently part of Cotton Info's mandate/strategy and it would be an industry decision to further utilise this existing capacity by expanding this mandate.

3. **Industry diversity and networks**: Most cotton growers are also mixed cropping farmers or have animals and therefore pay levies into other industries. The cotton industry could consider involving other industry RDCs or peak bodies in developing a shared interest in and joint action for supporting community resilience.

4. **Relationships and communication:** Despite generating significant revenue, the Australian cotton industry is a relatively small, tight-knit community and relationships between the sector's organisations and with the industry's grower-base were generally judged as strong by key research informants. This can facilitate communication processes when it comes to joint action and shared investments into progressing industry good. The sector can build on these existing avenues and relationships to further strengthen communication around shared purpose to maximise cooperation between its organisations and benefit from investments.

5. **Shared industry investment in agricultural skills training**: The AgSkilled industry-led partnership between Cotton Australia, the Grains Research and Development Corporation (GRDC) and the NSW Government was mentioned by research participants as a successful model for cross-industry training partnerships. While applications for funding under this scheme will be concluding June 30, 2020, the potential for establishing more permanent, cross-sectoral, cross-industry and regionally available training programs and avenues could be considered.

Regional resilience assessments

This section provides a brief introduction to the three case study regions, around the towns of Goondiwindi, Warren and Walgett, before providing an outline of key local and regional change challenges that were identified in collaboration with community research participants across all three regions. Subsequent sections provide a list of priority areas for action, additional stakeholder groups and community strengths identified as well as key action plans developed by individual communities. (see appendix for detailed assessment reports).

Goondiwindi

Goondiwindi is a growing town and regional community on the MacIntyre River and near the Queensland-New South Wales border (total regional area population 10,770; town population 5,600 (ABS, 2016)). The Goondiwindi community is very reliant on the agricultural sector, including grazing, dryland farming and irrigation, although the local economy is increasingly diversifying. Wheat and cotton are important crops, with the boom and bust character of cotton having significant impact on the local economy and employment stability: when water is available, cotton brings good revenue into the town but without a cotton crop, Goondiwindi loses many jobs. Water in the Goondiwindi area is sourced from the Border Rivers catchment and partially from the Gwydir catchment. In May 2020, Goondiwindi Shire remains a fully declared drought Shire affected by current drought conditions (since approx. mid-2017). Overall, locals describe Goondiwindi as a very prosperous town. Many farming families have large scale operations with significant turnover and corporate farming is on the increase (MDBA, 2016). The Murray-Darling Basin Authority's Northern Basin Review describes the general social and economic conditions in the local community as 'quite sound' (ibid.) along indicators such as education and occupation, availability of economic resources and levels of advantage and disadvantage. Cotton growing families have traditionally been supporting local community initiatives and local enterprises.

Warren

Warren is a town in the Orana Re gion of NSW, situated near the Macquarie River. It is located on the Mitchell and Oxley Highways, 120 kilometres north west of Dubbo, and is the seat of the Warren Shire local government area. In 2016, the Shire had a population of 2,732, with 1,530 residents living in town. Aboriginal and Torres Strait Islander people made up 14.4% of the Shire's population.[3] Warren has a relatively young population: 52% of people in Warren Shire were children or young adults (0 to 44), and 48% were 45 years and over in 2016.[4] A number of organisations respond to the resulting need for childcare, although workshop participants noted a lack of opportunities for older children and young adults. Agriculture as the largest employer includes sheep, wool, cattle, grain and cotton. Other important sectors are retail trade, education and training, health care and public administration.[5] Warren has several community and sports-based organisations and the Far West Academy of Sport is based in Warren. In March 2019, Warren Shire Council introduced level 3 water restrictions to adapt to decreasing flows in the Macquarie River.

Walgett

The town of Walgett is located approximately 640 kms by road from Sydney, near the junctions of the Barwon and Namoi Rivers and the Kamilaroi and Castlereagh Highways. In 2016, there were 6,107 people in the Walgett Local Government Area, with a population of 2,145 in the town itself. Aboriginal and Torres Strait Islander people made up close to 30% of the Shire's population.[6] In 2015, the town was listed as one of the most socially disadvantaged areas in the state of NSW (Dropping Off The Edge report).[7] The town is the seat of in the Walgett Shire Council. Walgett has a community college and highschool, a private catholic school and a TAFE NSW branch. In the summer of 2018/2019, due to the ongoing drought, loss of river flows and a heat wave, Level 6 Water Restrictions were imposed in Walgett and other towns in the Shire. Walgett residents had to rely on bore water for 18 months.

Key local and regional challenges across all three case study regions

Table 4 summarises key challenges that were identified in the workshop discussions with community participants in Goondiwindi, Walgett and Warren. While the communities shared in similar high-level challenges, slight differences in their local presentation and impact are also described.

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[3] https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/LGA17950

[4] https://multiculturalnsw.id.com.au/multiculturalnsw/lga-population?WebID=1270

[5] http://www.warren.nsw.gov.au/business/economic-overview

[6] https://itt.abs.gov.au - Walgett (A) (LGA) (17900)

[7] https://dote.org.au/findings/full-report/

Table 4: Key cross-regional challenges identified in workshop A

Key challenge	The challenge and its impacts
Decreasing regional populations • lack of diversity in local industries • strong dependence on agricultural industries and water/ soil quality • loss of skilled workers and young people *'We need 'new blood' – new people to take on roles in the community'* *(Walgett participant)*	Decreasing and ageing regional populations and the resultant skills drain was one thematic complex linked to dwindling employment, and lack of local/regional education and training opportunities. Participants identified several causes: • lack of diversity in local industries • strong dependence on agricultural industries and water/ soil quality • proximity of larger regional centres that act as 'sponge towns' draining services and employment • long distances *Population decrease emerged as a resilience threshold* because it has cumulative impacts, leading to accelerated loss of local jobs and skills and the community loses people, services. This often results in the weakening of social networks and community coherence making towns and regions less attractive. Other areas of concern relate to volunteer fatigue/ ideas drain and the need for new blood and innovative ideas.
High dependence on agriculture and water availability *Farming is the biggest economic contributor in the Shire but 50% of the community don't understand it'* *(Walgett participant)*	Climate variability and the availability of water are central challenges that impact community resilience as they cut across economic, social and environmental pillars of sustainability and interactions between them. Water is a political factor on a range of levels. For instance, Walgett participants pointed out that Walgett is located on two different river systems with different water regulations, which can entrench local factions and tensions, threatening community coherence. However, as the discussions revealed, water is not the only challenge, nor is 'fixing water' the only possible solution to the challenges listed by the participants. **Linked economic/social impact:** Where local economies are highly water dependent and lack in diversity, uncertain availability of water leads to loss of income and therefore loss of local employment and education and training opportunities. These in turn lead to decreasing populations as skilled workers and young people move away from the region. Decreasing populations lead to loss of services and decreasing locally liveability, with severe social consequences, including the loss of social networks anchored around schools and sporting clubs, and inadequate medical service coverage.
Negative perception/weak social license of the cotton industry and agriculture in general *"Council don't listen to the community […] They are not from here, they tick the boxes and we're left with inadequate solutions"* *(Walgett participant)*	Participants described a strong sense of the urban-rural divide: There is a lack of broader community understanding at the national scale of modern agriculture, and its contribution to the Australian community is not valued enough. The social license to farm is perceived as weak. This needs to be addressed at a national level. Coupled with the current water crisis, negative perceptions of agriculture are common across Australia, with some industries (such as cotton) being even more strongly stigmatised than others.

Key challenge	The challenge and its impacts
	Negative media portrayal of cotton and irrigation especially in relation to drought and water shortages. Participants perceived the cotton industry's approach to criticism related to these issues as too reactive and defensive. They encouraged a more proactive approach, educating the broader public about the value of cotton. **Linked impacts:** The psychological and economic impact on rural populations can be severe (i.e. social media attacks on farmers and irrigators in the wake of Menindee fish kills in early 2019). It also leads to a political divide and participants expressed as sense of lacking political influence both locally and at a national scale, as generally, it is perceived that the major political parties tend to cater to the political views of urban populations over rural communities and this can deepen the divide even further. Local impacts of the divides included: divides between town residents and farmers/country residents; inter-regional and local cross-industry conflicts based on resource scarcity (i.e. dryland; irrigators; graziers; broadacre etc). These tensions put at risk community connections and the ability to act collectively for improving local issues and to strengthen the community's political influence.
Lack of community coherence *'There's a lack of vision, a lack of forward thinking in Warren. We need more people and businesses with ideas'* (Warren participant)	In addition to the cultural divide between urban and rural communities, industry and value-based conflicts, participants described local cultural divides between townspeople and farmers as well as Indigenous and non-Indigenous communities. Community and industry groups likewise seem to be operating in 'silos' and this reinforces social barriers. Women often experience isolation, and there is a lack of opportunities for social interaction or for participation and debate; Poor communication between groups, from council. **Linked social impact:** Community fragmentation weakens the ability to draw on diverse knowledge and experiences to develop innovative ideas and act collectively for improving local issues and to strengthen the community's political influence. Indigenous populations in the regions are still disadvantaged due to several reasons and this creates a social problem impacting the whole community. Community life in small regional towns relies on pro-active community members that often juggle several social commitments and professional roles. Losing such central community figures – either because they move away or are unable to continue their level of commitment – can mean the loss of important local initiatives or social networking opportunities. Some initiatives lose their creative momentum because there is a need for 'new blood' and new ideas coming in but there are not enough opportunities for engaging youth into the community space.

Key challenge	The challenge and its impacts
Sense of political powerlessness and lack of leadership in the communities *"We need to try and lessen 'red tape' issues and strengthen links between existing organisations, people, and groups or initiatives to enable action and avoid talk-fests and 'consultation fatigue'"* (Goondiwindi participant)	Leadership and applying for funding opportunities: Change action often relies on the commitment of local volunteers who frequently experience volunteer fatigue in the face of general opposition to change and encountering 'red tape' and administrative restrictions. In addition, while there are a range of funding opportunities available to community-driven initiatives, funding application processes are often time intensive and require significant amounts of coordination and grant-writing experience. Community participants felt that on the whole they lacked capacity to take full advantage of such opportunities. The sense of 'not being listened to' by decision-makers or the lack of central leadership in progressing local projects can similarly lead to people disengaging from community initiatives. While Goondiwindi participants also described degrees of disconnect in their community, the sense of a lack of community influence on local decision-making was most pronounced in Walgett and Warren. Warren: Warren Council is proactively engaged in many community concerns. However, participants felt that this was not sufficiently communicated, and community are not aware of existing Council-driven initiatives. Participants perceived a lack of shared vision, leading to a sense of fragmentation in the community and between groups. Opportunities for participation were perceived as insufficient and or not inclusive. Walgett: Participants did not feel that their council sufficiently represented or listened to local needs. The Shire council manages a vast region with participants observing a lack of local representation in both council administration and through Councillors.
Environment	Largely utilitarian views on natural assets (i.e. using water for irrigation agriculture/ profit) continue to dominate regional perspectives, often at the detriment of maintaining natural assets for other purposes. **Linked Social/environmental impact:** Environmental assets (rivers, marshes, bores, wetlands) were mentioned as important assets in all three regions. Community engaged management of public spaces and places could benefit the community through increasing liveability, attracting people, and creating job opportunities in tourism. Indigenous Tourism opportunities are strongly linked to these assets and opportunities. Keeping the towns attractive includes employment and education opportunities as much as housing availability and other physical and social aspects (attractive public spaces, social meeting places) that make people want to live in these regional towns.

Some indicators of community strengths and assets

Applying the resilience resource indicator framework to the challenges emerging from the research identified weaknesses across all 7 sets of indicators, while also highlighting their interrelationships. For example, the lack of diversity in local industries and the regions' strong dependence on agricultural industries and water and soil quality, coupled with negative perceptions of agriculture in general, indicates how uncertain financial and natural resource access interacts with the weakening of human, social and physical capitals, such as the loss of skilled workers and professional services. A perceived lack of community coherence and community leadership enabling inclusive collective action (human and social resources) leads to a sense of political powerlessness (indicating unsatisfactory access to institutional resources). This can have diminishing effects on the communities' ability to both access and improve physical and natural resources (attractive towns and places; healthy environment) and their ability to maximise benefit from opportunities to build financial resources (i.e. industry diversification).

Workshop participants next discussed what they perceived to be their community's most important strengths and assets.

Community coherence and trust: indicators for access to human and social resources were present across all three case studies, but participants also saw significant scope for improving their quality and building upon these resources. However, while participants observed existing tensions or disconnects between community groups, there was an overall sense that their communities had overall managed to maintain trust and a caring community spirit. Existing groups, initiatives and events and the ability of the community to rally together and act for a shared cause as well as generous individuals donating money and time to community causes were also mentioned favourably.

'Our people and their networks' were another indicator of good human and social resources mentioned across the three towns. Examples included the presence of several very pro-active community members and key influencers (Goondiwindi) as well as community members that were described as 'educated, passionate, creative, innovative, funny' (Walgett), and women and mothers' groups linking across 'social boundaries' (Warren).

Local skills, experience ('Farmers are good at planning ahead and adapting'), innovative ideas and levels of influence in Warren also overlapped with the institutional resource of a regional council that is willing to listen and proactive about place improvement initiatives, although, according to participants, access to this resource could be more inclusive and make more use of the community's existing social and human capital.

The local and regional environment were judged important natural assets and resources by participants in all three case study regions that would however benefit from increased attention and investment. Other indicators of good physical resources included local sporting venues and events as well as parks.

A shared history and diverse culture, including the celebration of the regions' agricultural past and present, local produce and the appreciation of their Indigenous cultures was an resource indicator able to improve and/or produce a range of positive resilience outcomes, including a sense of belonging to place and community, community coherence, shared interests and economic opportunities for different sections of the community.

Opportunities for action

The results from this discussion of community strengths and assets in the context of identified key challenges assisted participants in assessing the gaps and resultant 'opportunities for action'. A synthesised list of these opportunities (Table 5) provided the basis for the discussions and development of action frameworks in workshop B.

Table 5: Opportunities and suggested short-to medium term actions synthesised from workshop A.

Opportunities	Suggested short-mid-term actions	Building and drawing on resilience resources
Improve opportunities for participation in local decision-making	• Improve lines of communication • Community Engagement Officer • Draw on community knowledge and skills • Succession planning for groups • Events (kids and other)	Improve institutional resources and draw on social
Diversify industries/ income sources	• Farm experiences/ tours • Tourism • Local crafts/ produce • Alternative energy projects • Invest in local water recycling plan	Financial Human and Physical
Improve connection/ coordination of existing services and programs	• Mental health programs • Economic /community development/engagement position (council)	Social and institutional
Improve connection/ coordination of community level groups and networks	• Bring together existing community groups • Need a 'community champion • Meeting hubs • Events Council; local clubs, show society • Education about agriculture/ cotton	Social and institutional
Build community capacity and keep it local (projects and skills)	• Grant writing workshops • Training programs on Leadership; Group facilitation • Local thinktanks for diversifying industries/ income streams • Improved youth engagement	Human
Raise industry profile	• Farm tours • Tourism opportunities around ag/cotton	
Protect environmental assets	• Build partnerships: Council, environmental groups, industry • Place-making initiatives – 'pride of place' • Opportunities for working together with Council and Landcare/ Clubs/Schools • Tourism opportunities	Natural Institutional Physical Social
Advocate/ influence across sectors and scales: Industries/government	• Explore partnerships and opportunities at higher levels of influence/ other industries • Seek a leader/ broker of relationships	Human Social Institutional

In a second step, the workshop participants selected three priority areas for action in the short to medium-term future as a basis for the development of detailed regional action frameworks. The selection and prioritisation of priority areas differed only slightly across the three case study regions. The focus on participation in decision-making; improving the economic basis through diversification and building human and social capital emphasises the importance of a community being able to draw on core resilience resources.

Priority area 1: *Improving opportunities for participation in local decision-making* was voted number one priority in all three communities, while Walgett participants stressed the need to *improve connections and coordination of community level groups and networks* as equally important. Participants in Warren voted *connections and coordination* as a second priority before economic diversification.

Priority area 2: *Diversifying local and regional industries and income sources and exploring new market*s were the next priority area for participants in Goondiwindi and Walgett, while this option was not represented in the Walgett participants' list even though it did feature prominently in the workshop discussions.

Priority area 3: Participants in all three workshop locations agreed on the importance of *building community capacity and capitalising on local knowledge, skills and expertise* instead of relying on outside professional expertise to boost local employment and ensure continuity of service. Building community capacity in leadership, project management and grant-writing skills was noted as another important area for action under this priority.

Local priority Action area	Purpose/ details
1 **Improve opportunities for participation in local decision-making**	Empower community; find locally relevant solutions; draw on combined knowledge and skills
2 **Diversify industries/ income sources**	Reduce dependency on agriculture, water, soil
3 **Build community capacity and keep it local (projects and skills)**	Utilise and support existing local capacities and potential Empower community to make decisions about local needs and ideas

Key actions from the Community Action Frameworks

The regional community resilience assessment workshops concluded in November 2019 with the development by community participants of localised action frameworks addressing the key priority areas for action. In this session, participants used Workbook tool B9, which provides a detailed framework for developing tangible actions, assessing scale of action, feasible timeframes and required resources. (Please refer to the detailed plans in the appendix)

Walgett

Participants in the Walgett workshop focussed on Improving opportunities for participation in local decision-making and Improving connections and coordination of community level groups and networks. They developed a detailed plan for gaining local government support for a dedicated Project Management and Grant-writing position to help strengthen community capacity to successfully apply for available funding grants. A second action was aimed at improving coordination of regional participation and community access to institutional resources through the establishment of a regional committee.

1. **Approach council to gauge support for a fulltime grant writing and project management position** to assist with the matching, writing, administration etc of community grant ideas, grant submissions, and project management.

   - Develop position description for a fulltime grant writing and project management position
   - The group selected representatives to work on and present a submission to council to consider the feasibility of such a position at a council meeting in late 2019.

2. **Establish a Regional Steering Committee** of key community/business stakeholders in Walgett Shire (including smaller 'satellite towns', for example, Collarenebri, Pilliga, Rowena, Burren Junction etc., and agricultural stations).

   - Hold consultation meetings in 'satellite towns'

3. **Launch of local website**, Walgett.net, with information on the town and region; events; business directory etc. was launched by Kate Schwager in 2019 (Kate's on Web community developer); others upcoming (i.e. Burren Junction).

Warren

Warren participants worked on three priority action areas:

1. **Improve opportunities for participation in local decision-making:** Strengthen support for Community Engagement/ Development Officer Role (in Council) as a point of contact for community concerns and ideas.
2. **Build community capacity and keep it local:**

   - Run leadership, advocacy, governance and grant writing workshops
   - Establish Think tank on grower education and industry messaging
   - Start/maintain a Warren Rural Support Network
   - Improve local youth engagement

3. **Protect and maximise benefit from environmental assets:** Local environmental assets (e.g. the Macquarie Wetlands) can be important drivers for economic diversification (e.g. through tourism, environmental education). Protecting environmental assets and educating/ raising awareness about the importance of 'environmental water' will also contribute to overall wellbeing in the town and region. Actions towards these aims included:

   - **Work with council and education institutions to raise profile of environmental assets and environmental education opportunities** (for example: contact local and regional schools, set up Memorandum of Agreement between Riversmart/ Shire and with ag businesses)

Goondiwindi

Goondiwindi -based action plans were directed at:

1. **Improving opportunities for participation in local decision-making**

   - Improve representation of rural businesses in local and state government
   - Create local think tank/ forum of business owners, others
   - Convene regional, cross-industry group

2. **Capacity building:**

   - Engage advisor/agronomist/ to help with advice for ag/other small businesses
   - Organise workshops for grant writing assistance; marketing
   - Set up database of services to assist with finding resilience related services

Evaluating the Workbook Process

The two regional community workshops in each of the case study towns applied tools from part A (workshop 1) and part B (workshop 2) of the Resilience Assessment Workbook to structure the workshop interaction. At the end of each workshop, participants were asked to evaluate their experience, using the evaluation questionnaire provided as part of the Workbook. This section provides a summary of the responses received (n = 35).

1. **Usefulness of the process structuring the discussion:** responses rating the value of the process ranged between enough value (9), valuable (10) and extremely valuable (10)

2. **Understanding the challenges:** most of the respondents agreed (17) or strongly agreed (16) that they were able to gain a good general understanding of the challenges discussed as a result from the workshop.

3. **Sharing knowledge and experience:** the majority of respondents (23) agreed that they were able to share knowledge and experience relevant to exploring the opportunities for practical action; another 9 respondents strongly agreed.

> *…that process where effectively the participants took home a document […] actually turning a need into a goal and into an action and an outcome […] it heightened the experience for everyone.*
> (Walgett participant)

4. **Gaining new information or ideas from other participants:** respondents agreed (17) and strongly agreed (17) that they benefited from the workshop discussions by learning about new information or ideas from others.

5. **Useful insights for future resilience building activities:** Respondents agreed (15) and strongly agreed (16) that the discussion generated insights that will be useful in future activities related to building resilience and adaptive capacity in my community.

6. **Facilitation of thinking about local actions:** 18 respondents agreed and 11 strongly agreed that the workshop structure and questions helped them in thinking about what kind of potential local actions supporting community resilience and adaptive capacity.

7. **Feeling hopeful about instigating an action in my community or beyond:** responses on this question differed more markedly from other questions, with a little less of a third of the respondents feeling neutral (neither agree nor disagree (8)) about their ability to instigate local action, and two thirds agreeing (12) or strongly agreeing (11)

> *Listening to others has prompted me to think about questions that I didn't ask myself individually.*
> (Goondiwindi participant)

Most valuable aspects of the workshops utilising the Resilience Assessment Workbook :

The evaluation forms further asked community participants to comment on what they experienced as the most valuable aspects of the workshops, or what they would like to see improved. The main responses are summarised below:

- The workshops provided opportunity for meeting new people, networking and interaction with others that share similar concerns and goals for the community.

- The workshop process provided opportunity for participants to hear about others' opinions, knowledge and ideas, and to draw on this diversity in thinking to improve understanding of the regional challenges faced and possible responses.
- The inclusivity of the workshop process and facilitation provided opportunity to individuals to share their thoughts and ensure that community perspectives and input into local issues were represented.
- The facilitation and feedback (having a set of identified opportunities and the 'framework for action' worksheet were very useful; the establishment of clear actions items and a plan)

Particularly having two meetings, not just a single meeting, really helped to highlight what resilience looked like for us […] and what the community members recognised within themselves.

Future recommendations for running the Workbook process in practice:

Additional insights from running the Workbook process and follow-on stakeholder meeting included:

- This process needs to be expanded to include wider community and needs some follow up action at higher levels
- There is a need to create accountability and follow-through actions, for example through the establishment of regional future resilience committees.
- Need a facilitator (i.e. project manager/ grants writer)

Recommendations to the Cotton Industry

The following recommendations for potential strategic actions that can be undertaken by the cotton industry to support community resilience processes in regions where cotton is grown have emerged from the research. The recommendations have been refined in discussion with strategic-level industry representatives and other regional community and cross-sector stakeholders (including: Council representatives; NSW Department of Primary Industries Regional Resilience Program). While this section outlines recommendations specifically targeted to the cotton sector as this project's research investment partner, additional recommendations relevant to other stakeholders have emerged in line with the systemic approach to building community resilience taken in this project. These recommendations as well as detailed lists of suggested actions can be found in Appendix 3.

Supporting community resilience and adaptive capacity is of strategic interest to the cotton industry and there is strong alignment in existing cotton industry strategies with principles and goals of building community resilience.

1. Continue to be proactive about diverse stakeholder engagement and leading conversations

In the face of ongoing, dynamic and complex change challenges (including drought/ changes in water policy, technology disruptions, population decline and attendant workforce issues, COVID-19 medium to long term impacts), strengthening the Australian cotton industry's social licence and connection with communities is of strategic interest to the industry and important to its sustainability into the future.

Proactive engagement with industry and community stakeholders (at local, regional and national levels) and listening to their concerns, needs and innovative ideas, will enable the cotton industry to lead positive and productive debate around finding solutions to regional challenges, and aid its

messaging about the industry's contribution to the economies and well-being of our regional and national communities.

Being engaged in ongoing conversations about regional and community concerns allows the industry to explore shared interests, benefits and potential alliances and work in partnership with the regions (e.g. regional councils, business groups, community groups) in order to strengthen their adaptive capacity when responding to current and future challenges.

The cotton industry can continuously improve understanding of stakeholders and keep conversations going, through:

- Targeted stakeholder mapping, asking who the industry wants and needs to engage with. New potential partners might emerge from stakeholder conversations (e.g. the North West Plains Sustainability Group, NSW DPI Regional Resilience Program).

- Seeking out potentially 'uncomfortable' conversations and seeking to build understanding of potential shared interests and benefits, for example through events such as the inaugural Cotton Open House engagement event with 'critical stakeholders' (environmental groups etc) in Sydney, March 2020.

  Another good example is Cotton Australia's *Rebuilding Trust Strategy*, a new 'business as usual' engagement model aiming to improve community understanding of the industry, demonstrate industry openness and willingness to listen to community and sustaining its social licence. Seeking open conversations may further reveal shared interests, benefits and potential alliances.

- Establishing regular engagement activities (within the cotton industry; with regional councils; other industries; regional and state level bodies (i.e. Murray Darling Basin Authority (MDBA) Stakeholder Engagement Program, NSW DPI Regional Resilience Program, National Farmers Federation (NFF); Country Women's Association (CWA) and other not-for-profit-organisations; Regional Cotton Grower Associations (CGAs)).

- Building engagement capacity within the industry, for example through expanding Cotton Info mandate; expanding roles of Cotton Australia Regional Officers; in-house training opportunities.

- Using the Workbook as tool in aiding existing engagement activities, e.g. Cotton Australia's Rebuilding Trust Strategy.

2. Strengthen existing and build new partnerships and explore becoming a broker/facilitator of connections at multiple levels

Pro-active engagement with a range of stakeholders, and the industry's existing cross-scale networks, positions the cotton industry well to act as a broker of connections between groups, of collaborative relationships and skill sharing partnerships. This role can reach across a range of action areas by working with others, such as regional councils or local business groups or by creating and supporting the creation of community based and industry related think tanks. Cotton Info, as the industry extension provider, already have a broker role between different organisations and sectors and would be well equipped to broaden this role.

There is a good opportunity to identify cross-industry partnerships and collaborative investments based on shared strategic interests and benefits (e.g. in workforce training and retention with the grains and grazing industries, see also below under recommendation 5).

Brokering a hand-over of the Workbook

The extension and facilitation of the use of the Resilience Assessment Workbook piloted by this project is a good catalyst for exploring partnerships with regional councils, the NSW DPI Regional Resilience Program and the MDBA Regional Engagement team as well as other agricultural industries represented in the regions. Another potential partner at state level partner is the new Resilience NSW agency and its Commissioner, Shane Fitzsimmons (https://www.resilience.nsw.gov.au/). The industry is well placed to introduce the Workbook at higher levels within these organisations and programs and therefore facilitate its wider uptake across scales.

The following suggested actions were identified in discussions about the cotton industry's role in helping to broker a hand-over of the Workbook to other interested groups and organisations:

- Explore interest and current practice around resilience in other industries
  (e.g. beef and grains industries and other regional industries)
- Explore interest in these organisations to apply/promote/ implement the workbook.
- Explore partnerships with MDBA/MDBC (e.g. MDBA Stakeholder Engagement Program (Sally Dickinson), and the Chair of the Panel for the Independent Assessment of Social and Economic Conditions in The Basin (Robbie Sefton) to:
  - o explore opportunities of the project's work to inform/ support delivery of the recommendations coming out of the MDB independent socio-economic report
  - o explore (with MDBA) federal funding opportunities to offer communities a facilitated approach
- Explore interest and share with NSW DPI Rural Resilience Program (contact: Lianne Corocher)
- Explore interest and share the tool with others to assist them in doing their work and supporting community. For example:
  - o through the National Farmers Federation (NFF)
  - o Country Women's Association (CWA) and other rural women's networks
  - o North West Plains Sustainability Group (Walgett)
  - o other not-for-profit-organisations (i.e. Foundation for Rural & Regional Renewal (FRRR) and Australian Rural leadership program candidates)
- Engage and work with regional councils to raise awareness and encourage ownership of the Workbook and process.
- Consider hosting the workbook on regional council websites to make it available to councils and community groups.
- Be active at higher levels at those organisations rather than brokering resilience at the community level.
- Connect at a regional level through CGAs, for example via an information pack on the Workbook and the resilience process, assist them in proactively connecting with their local council or regional body.
- Have yearly or bi-annual conversations at the CGAs/Council level to explore opportunities to trigger the first and next steps of running a resilience process

3. Maintain momentum, and maximise opportunity from relationships and local champions emerging from the action research

The action research has raised regional awareness for the practical aspects of resilience planning, the availability of the Resilience Assessment Workbook as a tool to aid these processes, and the cotton industry's interest in gaining a better understanding of what is required to support community resilience.

Local groups: Potential partnerships at regional level emerging from the research include the North West Plains Sustainability Group (NWPSG) in Walgett (partnership with Landcare NSW). NWPSG is a progressive community driven group with a range of existing networks and capacities around the extension of sustainable farming practices and natural resource conservation (native vegetations management). They have capacity to host events on agricultural advice and financial literacy for small/family owned businesses. The project hired the NWPSG Group Coordinator in November 2019 to facilitate the regional resilience assessment workshop in Walgett and this contact continued to support workshop participants after the event in their follow up actions identified at that workshop.

Community participants developed frameworks for short-to-medium term actions as part of the resilience assessment workshops. These are a valuable resource for the industry to start or reignite regional conversations around community resilience initiatives and what influence and actions may be needed at higher levels (and who could initiate these).

Council representatives in Warren and Walgett have been actively involved in both resilience assessment workshops (April and November 2019), and the project's final sector stakeholder webinar. Participating Councillors have been raising awareness in council and in the community for the project aims and the Workbook tool created and expressed interest in strengthening lines of communication with the cotton industry.

Cotton Growers Associations as the regional representative bodies of the industry are a good avenue for the industry to share the Workbook tool with other groups and to building and maintaining relationships with communities and councils. For example, the research project worked with the secretary of the Macquarie Cotton Growers Association (Warren region) to engage stakeholders with the aims of the Workbook and to facilitate the second resilience assessment workshop in Warren.

4. Share the workbook with other communities, councils, industry and regional bodies

The Resilience Assessment Workbook is a valuable practical output from the applied research conducted in this project. As part of the assessment process, research participants in the three case study communities identified concrete actions and key regional stakeholders that could help drive these and related actions towards positive change. The stakeholder and industry discussions revealed further organisations and programs at higher levels and external to the cotton industry (listed below) that could potentially be interested in and benefit from this resource. Sharing the Workbook with these identified groups and organisations can be considered an important project legacy able to position the cotton industry as a leader in the community resilience space.

Potential practical actions the cotton industry can take to facilitate uptake of the Workbook include:

- Raise awareness of the Workbook with local leaders and stakeholders and provide it as an online resource.
- Consider producing an introductory video (CRDC) on facilitating the workbook process. Potentially offer to provide guidance/facilitation if groups want to continue the process.

- Consider training cotton sector staff in facilitating the workbook process.
- Determine time and financial resources required for initiating and implementing the process (see sample position description and budget for workbook process facilitator in the appendix).
- Identify available funding grants in each region and apply for funding to support Workbook extension (partner with councils).
- Complete pilot assessments in the Warren and Walgett communities to gauge investment and success.

5. Consider strategic investments/ collaborative grant opportunities

Explore the scope of extending local government and cross-industry partnerships based on mutual strategic interests and shared benefits. Most cotton growers are also mixed cropping farmers or have animals and therefore pay levies into other industries. The cotton industry could consider involving other industry RDCs or peak bodies in developing a shared interest in and joint action for supporting community resilience. There is opportunity for the industry to co-invest with others (including other agricultural industry bodies such as GRDC and MLA; regional councils) in community capacity building, for example through larger grant schemes such as the federal Future Drought Resilience Fund that invite collaborative submissions or through local education and training facilities.

Shared industry investment in agricultural skills training: The AgSkilled industry-led partnership between Cotton Australia, the Grains Research and Development Corporation (GRDC) and the NSW Government is one successful model for cross-industry training partnerships. While applications for funding under this scheme will be concluding June 30, 2020, the potential for establishing more permanent, regionally available training programs and avenues could be considered.

6. Advocate/influence at 'higher' levels

The industry is already operating at an advocacy level with governments and across sectors (CA). Increased stakeholder engagement and consultation can further provide direction for the cotton industry's role in advocacy and help articulate community issues at these higher levels in a productive way and by assisting communities in linking up with the political realm. For example, possible areas for cotton industry advocacy at higher policy-levels can include attracting and funding agricultural training providers and other industries in the regions.

7. Consider industry internal capacity assessment, training and expanding capacities to support existing broker roles

Extension and Engagement: The cotton industry can build on existing strengths and capacities to support community resilience through intensifying engagement with regional communities and local governments around resilience assessment and planning action, and through the industry's advocacy role at higher policy levels. For example, Cotton Info have a significant role in resilience at an industry scale and many of their current functions could contribute to supporting resilience at the community scale. Cotton Info already have a broker role between different organisations and sectors. They have capacity to support building industry adaptive capacity (through fore-sighting and capturing industry memory) and to assist in finding solutions to problems.

The community scale is not currently part of Cotton Info's mandate. The industry could consider to further utilise Cotton Info's existing capacity by expanding this mandate to include community-level support (e.g. running community capacity building events; expanding existing position descriptions for

regional Cotton Info officers). Regional CGAs are well networked and linked into the communities and therefore present a good additional conduit for supporting community resilience through engagement and capacity building events.

Using the Workbook for internal capacity assessment and capacity building: While the Resilience Assessment Workbook was co-produced with communities for their benefit and to assist them in identifying their contextual challenges and possible response options, the process is relevant and applicable across other contexts where groups or organisations are grappling with complex change challenges. The Workbook tools are designed to facilitate assessment of a current situation and build capacity to respond by facilitating collaborative processes of knowledge sharing, reflection and social learning, and planning for action. Broad stakeholder engagement, an inclusive partnership approach, and maintaining a transparent and trustful environment are important elements of the Workbook process.
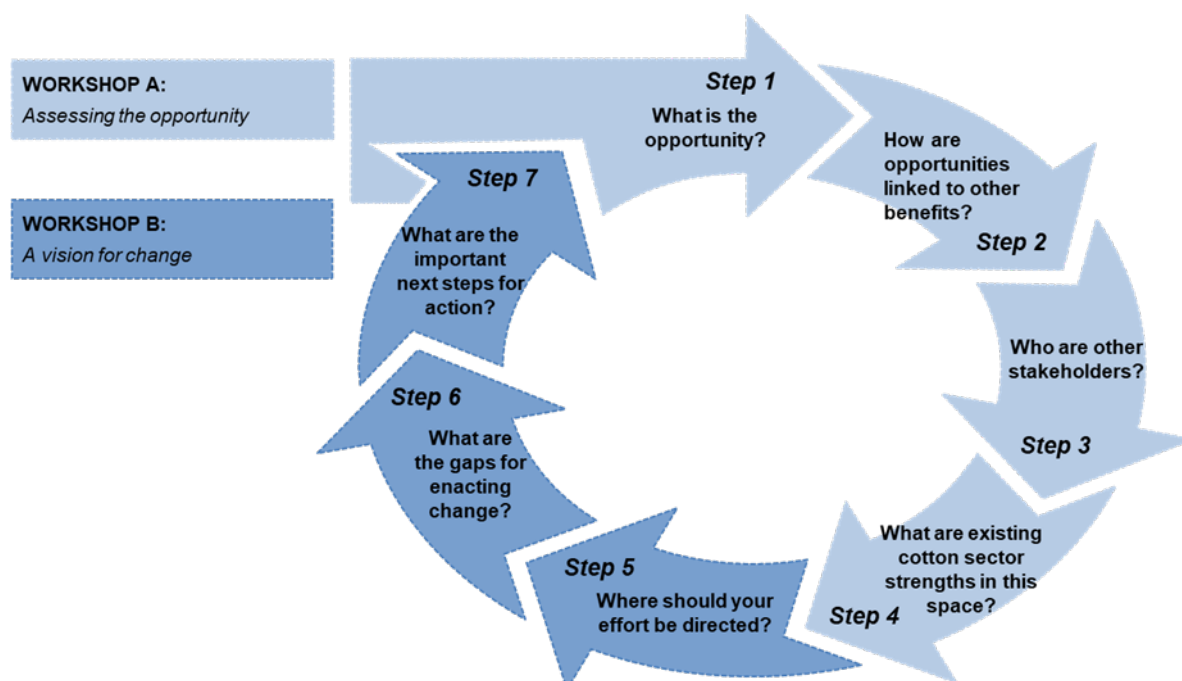
Figure 3: Using a modified Assessment Process for industry strategic planning

The Workbook is suitable to be used internally by the cotton industry to aid strategic planning processes. For example, Fig. 3 offers a modified version of the seven-staged assessment process used in the workbook to facilitate internal discussions within the cotton industry. Table 6 lists suggested questions that may aid the assessment process and exploring options for strategic benefit and arising action.

It is recommended that the process is facilitated by an experienced external facilitator, allowing enough time to maximise from the exchange and learning opportunity (approx. a half day or whole day for each workshop component).

Table 6: Suggested workshop questions for industry assessment

Workshop A: Assessing the opportunity	
Assessment step	**Suggested questions**
Step 1: What is the opportunity?	What benefits/ opportunities arise from supporting community resilience and capacity building? e.g. benefits of regional workforce training, industry diversification
Step 2: How are the opportunities linked to other benefits?	Are there other opportunities? Who will benefit?
Step 3: Who are other stakeholders?	Are there others who might have a strategic interest to co-invest in this opportunity?
Step 4: What are existing strengths in the cotton sector?	What are existing strengths? What are gaps? (What is not working well?) What is the level of awareness of these strengths across the industry organisations?
Workshop B	
Assessment step	**Suggested questions**
Step 5: Where should our efforts be directed?	Prioritising short-medium and long-term action areas
Step 6: What are gaps for enacting change?	Are there gaps/ barriers within the industry? (see also step 4) How can they be addressed? What are other gaps/barriers external to the industry? How can they be addressed?
Step 7: What are the important next steps for action?	What are short term, medium and long-term actions? What are tangible actions to initiate first steps towards any of these actions and who is responsible? When will we (and who will) initiate these actions?

Conclusion

The Australian cotton industry will continue to face ongoing and complex change challenges into the future. In June 2020, at the time of writing of this final report, rural and regional communities in Australia were facing the aftermaths and ongoing impacts of major threats and disruptions: agricultural regions across Australia experienced prolonged drought and major rainfall deficiency, particularly in Northern and Central NSW and southern Queensland, causing an estimated decline in cotton crops by 82% to 61,000 hectares.[8] Drought and rainfall deficiencies are recurring realities in Australia, and in the summer of 2019/2020 were followed by wide-spread bushfires, estimated to have burnt over 10 million hectares of land. The global COVID-19 pandemic (2019/2020) resulted in extensive social and economic impacts, including on Australia's agricultural export markets. Additionally, rural, remote and regional communities have been experiencing declining population number and diminishing services for several years.

The sustainability of the cotton industry depends on regional communities as attractive and vibrant places to attract and retain a skilled workforce and agricultural service sector, and on the regional communities' ability to be adaptive and innovative in their response to threats and emerging opportunities. With water shortages and associated environmental decline, the industry has faced significant criticism at public and political levels. Maintaining the cotton industry's social licence to operate has therefore emerged as equally important to the industry's sustainability. The existence of resilient towns and communities in cotton growing regions will benefit the cotton sector as a whole as it experiences a range of threats and different growth and decline transitions.

By involving the perspectives of community stakeholders in assessing and planning for regional resilience, this project has improved the industry's understanding of what helps or hinders adaptive capacity of communities in cotton regions, and how the cotton industry can support their resilience. The applied research approach and use of an adaptive resilience assessment process as a key project output (the Resilience Assessment Workbook) has further contributed to enhancing regional resilience and capacity building in participating communities and with industry partners as part of the assessment process.

The research findings and recommendations assist the CRDC and the cotton sector to reflect on and strategically plan for potential future roles in supporting the resilience of communities on which the sector depends. There is a clear opportunity for the cotton industry to draw on the connections and momentum generated by this project to position itself as an engaged and committed partner and leader in supporting regional community resilience as the industry and regional communities face known and unknown, current and future change challenges together.

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[8] https://www.agriculture.gov.au/abares/research-topics/agricultural-commodities/australian-crop-report/overview

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Appendices

Appendix 1: Project plan

Assessment process phase	Research action	On ground actions in milestone period
Phase 1. Preparation phase: what is the 'system'?	Collecting information about potential case study regions and identify key informants;	Milestone 1 – discussions with Advisory Panel and key contacts
	Continue this process once case studies have been selected, deepen understanding about the system (example community assets, inputs, dynamics and thresholds that the cotton industry may need to contribute to managing in the future);	Milestone 2.1 – interviews and focus groups with community and other stakeholders; Form cotton community working teams – focus groups
Phase 2. Resilience of what?	Are we looking at the resilience of the cotton industry in the regions OR are we looking at the resilience of regional communities that depend on the cotton industry?	Milestone 1 – discussions with Advisory Panel and key contacts
	Who are these communities? Who are the stakeholders? What are the visions and values of different stakeholders about the desired system state? What are key indicators of resilience and well-being? Assessment of nature and extent of community strengths, i.e. social capital, networks, innovation capacity	Milestone 2.1 - interviews and focus groups with community and other stakeholders; Form cotton community working teams – run focus groups Stakeholders upskilled in resilience thinking
Phase 3. Resilience to what?	What are the key thresholds this project will address?	Milestone 1 – review of previous assessment; discussions with Advisory Panel and key contacts.
	What are the most pressing/relevant issues to the case study community? What elements influence this issue (i.e. what are the connected problems/ challenges? What perspectives do people bring to the issue?	Milestone 2.1 – focus groups and interviews Stakeholders upskilled in resilience thinking
Phase 4. So what?	Finalise two scenarios and consider different potential outcomes of change	Milestone 2.1 – Advisory Panel and community working groups

Assessment process phase	Research action	On ground actions in milestone period
	Begin resilience assessment process together with cotton community stakeholders Determine the type or degree of change required to achieve the desired outcomes	Milestone 2.2 – resilience assessment workshops
Phase 5. Now what?	Develop strategies for actions What are the actions required? What/ who is required to undertake actions? Identify areas for cotton sector role in community resilience over time. **Sector stakeholder meeting (April 2020)**: present key findings and: • Reflect on and describe the role the cotton industry can play in the resilience of regional communities • Develop strategic actions that the cotton industry can take to further support and build community resilience • Identify potential alliances and partners that the cotton industry can engage with and work with to progress the priority strategic actions **Final cotton industry meeting (May 2020):** • Identify how the industry can maximise benefits from project outcomes • Explore the potential use of the resilience assessment workbook • Clarify the motivational drivers for the cotton industry in supporting community resilience • Identify synergies with existing strategies led by the cotton industry that contribute to community resilience • Explore the potential scope and benefits of a broker function played by the cotton industry	Milestone 2.2 – Advisory Panel, stakeholder workshop Milestone 3 – Advisory Panel, stakeholder workshop, desktop analysis
Phase 6. Adaptive implementation	Synthesis of research results and recommendations for strategic action by the cotton sector.	Milestone 3 Advisory Panel, stakeholders, desktop analysis- **Final report**

1. Resilience assessment report Goondiwindi

April and November 2019 at the Jolly Swagman Motel

Who was there: MDBA Goondiwindi; Rural Sky Mental Health Service; Cotton Australia; New Leaf Ag; Evolution Farming, Macintyre Valley CGA; Goondiwindi Argus; Goondiwindi Chamber of Commerce; Goondiwindi Cotton; J. Duddy Management, cotton grower; InFarm Aerial Mapping

Apologies: Regional Council;

Understanding and linking the challenges

Questions: What are the main challenges for your community right now and into the short to medium term future (10-20yrs)?
What are the impacts?

In this first group discussion participants listed some of the main challenges currently facing their community. While they prioritised these challenges at equal levels, they have been ordered in the table below according to overarching themes and relationships between these challenges. In the following section, these challenges are also outlined with a focus on their economic, social and environmental dimensions, based on notes from the discussions.

Water – reliability					Lack of political influence
Employment	Population decreases		(negative) perceptions of agriculture		
Education and Training opportunities	Liveability		lack of social license to farm	Stigma around some communities and industry	Lack of community connection
			People feel like outcasts		
Loss of skilled workers and young people	Loss of services		Lack of broader community understanding of modern agriculture	Lack of connect between rural and urban communities	Inter-regional conflict
	'Sponge towns' – larger regional towns drain people and services locally b/c of proximity				
	Reliability of communication technology – we're missing out		Negative media portrayal of cotton and irrigation especially		
Difficulty attracting young people	Agriculture is under-appreciated/ not valued enough			Inter-industry conflict – dryland; irrigators; graziers; broadacre etc	

The challenges

Water availability is one central challenge impacting community resilience as it a key asset that cuts across economic, social and environmental pillars of sustainability and interactions between them.

Water is a political factor on a range of levels. However, as the discussions revealed, water is not the only challenge, nor is 'fixing water' the only possible solution to the challenges listed by the participants.

Economic: Where local economies are highly water dependent, lack of or uncertain availability of water leads to loss of income and therefore loss of local employment and education and training opportunities, which in turn lead to decreasing populations as skilled workers and young people move away from the region. Decreasing populations lead to loss of services and decreasing locally liveability, a process that might even be accelerated by what was described as the 'sponge town' effect: whereby people tend to utilise the services in the larger regional towns, leading to a drain of people and services locally in the smaller outlying communities.

Environmental/ economic: The Macintyre River, wetlands (the Boobera Lagoon) and landscapes were mentioned as important environmental assets that could benefit the community through increasing liveability, attracting people, and creating job opportunities in tourism. Indigenous Tourism opportunities are strongly linked to these assets and opportunities.

Social: The social disconnect between urban and rural/ farming communities, leads to a lack of appreciation of the value of agriculture in urban communities. Coupled with the current water crisis, negative perceptions of agriculture are common across Australia, with some industries (such as cotton) being even more strongly stigmatised than others.

This urban/rural disconnect can have severe psychological as well as economic impact on rural populations (i.e. social media attacks on farmers and irrigators in the wake of Menindee fish kills). It also leads to a political divide and participants expressed as sense of lacking political influence both locally and at a national scale, as generally, it is perceived that the major political parties tend to cater to the political views of urban populations over rural communities and this can deepen the divide even further (media coverage of issues such as water and agriculture are critical examples).

In addition to the urban/rural divide, participants described local, interregional and inter-industry conflicts between farmers and people living in town (whereby "people feel like outcasts" as one participant said, both locally and in the wider rural/urban context; between regional towns that are perceived as competing for assets, resources, people and services ('sponge-towns'); and between dryland farmers and irrigators, graziers and broadacre farmers etc.

These tensions put at risk community connections and the ability to act collectively for improving local issues and to strengthen the community's political influence. Indigenous populations in the regions are still disadvantaged due to several reasons and this creates a social problem impacting the whole community.

The stakeholders

Questions: Who are the stakeholders in these challenges? What is their level of influence? What are some of these stakeholders' resources/ perspectives?

Key stakeholder groups	Existing roles or interests	Level of influence in this challenge	How much are they currently engaged with the challenge?	What resources/ capacity do they potentially offer?
Community e.g. Local retailers association	Chamber of commerce Council P&A Show society Lions and Rotary clubs APEX, RSL Local indigenous people Cave Goondiwindi Botanic Gardens Young guns	Low High Medium Low for now	More at the show? APEX/RSL: low but could be high?	Communication wide network of a broad range of people
Community other	Sporting clubs High and Primary schools Discover Farming program Health services Community Gardens	High high	High high	Breaking down barriers Connecting, sharing stories, Education Social well-being – breaks down social status
	Exporters – woods, Cameron's [?], fuel Goondiwindi Training and Technology			
Industry e.g. Farmers, Processors, Consultants, Cotton Industry	CRDC Namoi Cotton; Agricultural Industry bodies GRDC Waggamba Landcare			
Governance e.g. Federal/state/ local government	GRDC State government State and federal politicians MDBA			
Environment	MDBA Waggamba Landcare			
Key influencers	E. Cairns J.Telford S.Coulton M.Smith Farming families are key Community Branding			

Important community assets, inputs, and strengths

Questions: What makes you resilient as a community? What are some of the most important community assets, inputs, and strengths?

The participants listed the following existing community assets and strengths:

"No need to 'reinvent the wheel', we need to support what's happening already in Goondiwindi and capitalise on what we have"

Community coherence and trust: Despite the existing tensions that focus group participants observed between community groups, it was also noted that the Goondiwindi community had overall managed to maintain trust and a caring community spirit.

Our people and their networks: There are several very pro-active community members and key influencers

Liveability:

- Goondiwindi was named Queensland's 'most liveable regional town' in 2018, and was amongst the top three of Australia's most liveable towns under 20,000
- Proximity to airports in Moree (1.5 hours) and Toowoomba (2.5 hours)
- Some people may live in Goondiwindi but work elsewhere (i.e. Moree)

Diverse industries:

- Pacific Petroleum – Headquarters [??]
- Telemetry and other agricultural technology companies: Agtronics, Goanna Telemetry
- Cotton
- Pork
- Abattoir
- Health services – important service provision for other towns in the region
- Aged care
- MDBA increasing regional staff
- Fashion (i.e. Goondiwnid cotton) and jewellery
- Tourism – grey nomads
- Local produce
- Mining is no competition

Environment:

- The Macintyre River is a major asset that would benefit from increased attention/ investment
- The (Boobera?) Lagoon

Culture:

- Aboriginal tourism could be fostered more
- Local food (restaurants)
- Rabbit works at Texas (historical site)
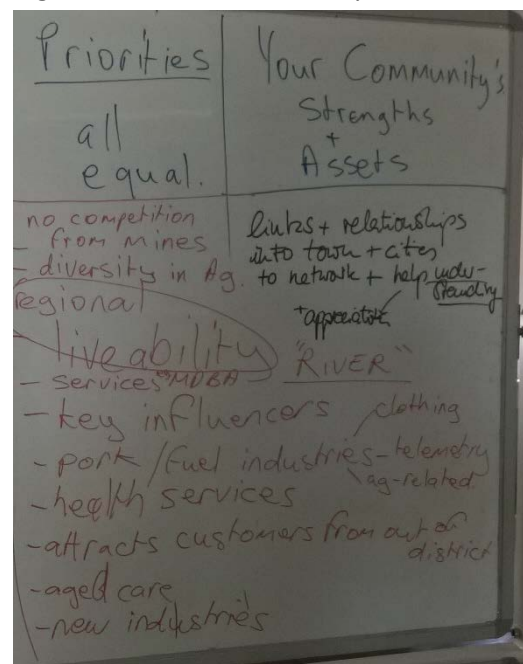
Ideas to improve on opportunities and address challenges

Question: How does this relate to and how could it help with addressing our key challenges? Who could do this?

Environment: The river and lagoon need better management and marketing to make them accessible and enjoyable for all year-round – Council and Landcare? Clubs? Schools?

"We need to try and lessen 'red tape' issues and strengthen links between existing organisations, people, and groups or initiatives to enable action and avoid talk-fests and 'consultation fatigue'"

Tourism: Jobs in tourism can help replace lost agricultural jobs and travellers bring business into town. Improving local tourism to Goondiwindi needs more and improved marketing and asset management to attract people and make them stay (need a 'united front' for tourism).

Ideas:

- Events for kids and other events to attract visitors (annual show, festivals etc) → **Council; local clubs, show society**
- Need to build more farm experiences/ tours (i.e. Sam Coulton's cotton tour) – People will learn more about rural communities and agriculture and help break down existing barriers/ improve understanding and appreciation through experiencing rural life. → **Council; private operators with funding?**
- Aboriginal tourism – will restore culture, purpose, pride and create employment opportunities for Indigenous people → **Council; private operators with funding?**
- Free camping areas – example of a small town near Cairns that invested in free camping and trails that attract visitors and business → **Council; private operators with Council/industry funding?**

What the cotton industry can do to support community resilience

Question: Can Cotton be a voice for communities at different levels?

The cotton industry tends to be too defensive and is often criticised as 'insular'. The industry needs to maintain/ improve its social licence and become more pro-active in controlling the 'messaging' about cotton with positive information:

- Highlight the importance of cotton – its many uses and benefits
- What are 'feel good stories' about cotton?
- Educate the public: Provide experiences and influence values held about cotton in the general community

Cotton industry could also be more pro-active by:

- supporting outlying communities (in the region?) that need support
- partnering with other industries to help diversify options and support existing ideas and initiatives
- becoming a leader/coordinator/ broker of such relationships and initiatives

Goondiwindi priority action areas:

1 Improve opportunities for participation in local decision-making

2 Diversify industries/ income sources

3 Build community capacity and keep it local (projects and skills)

4 Improve connection/ coordination of community level groups and networks

Frameworks for action for local priority areas - Goondiwindi

Priority action area: Improve opportunities for participation in local decision-making

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
Improve representation in elected members from rural properties	Industry groups identifying leadership potential Personal commitment from individuals Lobbying friends and family Encourage electoral office to get more info out	Local ag sector electoral commission	Short-term Nominations by Feb 2020	Communication tools	Elected members
Advisory service to support business restructure of local biz who don't' want to lose staff	Could be state of federal Local implementation Chamber of Commerce mentorship?	Chamber of commerce Local businesses Cross-industry groups	Short-term	Funding for the service Mentorship arrangements	People accessing service
Maintain quality not for profit governance Avoid reliance on volunteers to avoid fatigue – succession planning Diversity – rewards,	Local; renewal form new people/ ideas from outside of region	Existing NFPs; Potential community leaders Council to facilitate Community drivers	Short term to medium	Long-term support Funding for a role Need an advisory position – a person to lead a recognition process and develop recruitment packages	Executive roles filled Succession plans in place

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
training recruitment					
Bring together local/regional industry groups (cross industry) Get an agronomist to convene workshops and provide advice Grant writing workshop With one-on one advice at the end	Local Council for funding Primary Health Network funding Fed/state MDBA funding	Local business Engage and create consulting Goondiwindi Training and Technology centre Business chamber Ag businesses Farmers	Fairly regular 3-4 times a year Short term Approach for funding	Local grant writing expert Database of attendees to promotion too Venue	Businesses obtaining successful grants
Public mental health database or database of venues and means of communication	regional	Local gov Grassroots	Start straight away		
Funding enquiries Grant writing workshop design Marketing workshop	Action at local level for enquiries and action at whatever level there is funding	Local community driver (private) Potentially '?? Workshop attendees Funding body			

Additional points made: There's a need for accountability – who will drive these initiatives and be responsible for seeing them through?

Priority action area: Improve connections (local cotton industry and community/ ag population)

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
Collaborative platform (instead of workshops/ emails)	Local/ regional	Rural industry representatives and local/town reps	Short-term: identify leaders and groups Medium term: link and establish (?) Group and collaborative platform	Council Waggamba Landcare Group Chamber of Commerce Goondiwindi cotton Facilitation/ time	Create goals for group/ networks Evaluate and analyse success once we've achieved above goals
Quarterly collaboration events	Local	As above (one designated coordinator)	Short term: organise event ; plan outcomes Medium: have event Evaluate and analyse outcomes	Sponsorship; grants Location (local)	Attendance; involvement; achieving set goals
Cotton/agri education	Local	Industry leaders Schools Community groups Pastoral and Agricultural Society	Short: identify leaders and schools Medium: educate and experience Presentation at P&A show	Local industry knowledge P&A and D.F. committees	Involvement Outcomes of youth education Students long term involvement in local ag community May lead to mentorship relationships
Bring together all commodity producers	Local group workshops	All producers: grain, beef, sheep, cotton Use an agronomist to convene, support	ASAP Bring all commodity producers under one banner	Use ag to localise the national groups: bring back to regional size association	Representation of / size

Priority action area: diversify industries/ income sources

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
Defining alternate opportunities/industries Identify 'broader front'/ opportunities Manufacture is a strong factor regionally – support more/ increase marketing Economic development planning (GRC) – bring other businesses into the region Ag industry development Tourism development – expand options/ farm tours Education centre – improve promotion of/ marketing of education locally Target Mature age students	Goondiwindi regional council (GRC)	GRC Chamber of Commerce Local business Need a coordinator/ head of strategy Need someone who's accountable/ responsible	Project development Define outcomes Small group to develop (?) and drive vision stakeholder engagement	People – paid positions, not volunteers – **i.e. need a position of coordinator/ head of strategy Accountability**	New business leads Develop a shared vision
develop region now and into the future; product development					
Marketing plan to promote our region / drive new industry					

April and November 2019 at the Walgett Sports Club

<u>Who was there:</u> Walgett Shire Council; Ulah AG; consultant (Cotton); farm manager and Walgett CGA; farmers (mixed); Burren Junction farmer; Northwest Plains Sustainability Group; WinCott Walgett; Kate's on Web (community development); Artesian Bore Water Users Association – Burren Junction; NSW DPI Rural Resilience Program; Greg Rummery, AG Consultant;, Cotton Australia; Elsie Cotton Info

Apologies: Northwest Local Land Services, MDBA, Bourke and region

Understanding and linking the challenges

Questions: What are the main challenges for your community right now and into the short to medium term future (10-20yrs)?
What are the impacts?

In this first group discussion participants listed some of the main challenges currently facing their community. While they prioritised these challenges at equal levels, they have been ordered in the table below according to overarching themes and relationships between these challenges. In the following section, these challenges are also outlined with a focus on their economic, social and environmental dimensions, based on notes from the discussions.

Challenges

Climate/Water					
Population decrease		Governance		Cultural divides	
Lack of industry diversity	Community	Lack of leadership	Lack of local influence on decision-making	Disconnect between rural and urban communities	
Lack of employment, education and training opportunities				Lack of broader community understanding of modern agriculture	
	Young people not engaged in community				
Loss of skilled workers, educated women and young people	Volunteer fatigue "Shire tourism committee is 3 women volunteering"		Lack of (unbiased) information (events, local decisions, climate)	Indigenous and non-Indigenous communities	Town and farms
Loss of jobs and services: government; medical; infrastructure	Liveability Lack of meeting hubs Need for place improvement		Disconnect or 'silos' between industries and local groups		
Loss of schools, sporting teams, social networks					

"As a community we have enough money, but decision-makers don't know enough about local needs"

Linking the challenges

Climate variability and the availability of water are central challenges that impact community resilience as they cut across economic, social and environmental pillars of sustainability and interactions between them. Water is a political factor on a range of levels. For instance, participants pointed out that **Walgett is located on two different river systems with different water regulations**, which can entrench local factions and tensions. However, as the discussions revealed, water is not the only challenge, nor is 'fixing water' the only possible solution to the challenges listed by the participants.

Economic: Where local economies are highly water dependent and lack in diversity, uncertain availability of water leads to loss of income and therefore loss of local employment and education and training opportunities, which in turn lead to decreasing populations as skilled workers and young people move away from the region. Decreasing populations lead to loss of services and decreasing locally liveability, with severe social consequences, including the loss of social networks anchored around schools and sporting clubs, and inadequate medical service coverage.

Environmental/ economic: The Namoi and Barwon Rivers as well as the artesian basin and bores were mentioned as important environmental assets. Community engaged management of public spaces and places could benefit the community through increasing liveability, attracting people, and creating job opportunities in tourism. Indigenous Tourism opportunities are strongly linked to these assets and opportunities.

Social: The **social disconnect between urban and rural/ farming communities** leads to a lack of appreciation of the value of agriculture in urban communities. This is often fuelled by inaccurate and negative information spread by social media. Coupled with the current water crisis, **negative perceptions of agriculture are common across Australia**, with some industries (such as cotton) being even more strongly stigmatised than others.

This urban/rural disconnect can have **severe psychological as well as economic impact** on rural populations (i.e. social media attacks on farmers and irrigators in the wake of Menindee fish kills). It also leads to a **political divide** and participants expressed as sense of lacking political influence both locally and at a national scale, as generally, it it is perceived that the major political parties tend to cater to the political views of urban populations over rural communities and this can deepen the divide even further (media coverage of issues such as water and agriculture are critical examples).

In addition to the cultural divide between urban and rural communities, participants described **local divides** between townspeople and farmers as well as Indigenous and non-Indigenous communities. Community and industry groups likewise seem to be operating in **'silos'** and this reinforces social barriers.

Community fragmentation weakens the ability to draw on diverse knowledge and experiences to **develop innovative ideas** and **act collectively** for improving local issues and to strengthen the community's political influence. Indigenous populations in the regions are still disadvantaged due to several reasons and this creates a social problem impacting the whole community.

Participants discussed a **lack of leadership and perceived powerlessness regarding local decision-making: Lack of local representation** in local government: Most Council administrators are not locals, with some servicing the community on a fly-in/fly-out basis. Participants observed that decision-makers with little or no ties to the community often lack understanding of local/regional needs and showed little ambition to find optimal solutions to local issues.

Councillors were perceived as biased as many are from Lightning Ridge and likely to support causes more relevant to their own town and immediate region. Additionally, Walgett Shire Council manages a very large region with complex social, economic, institutional differences and issues, and this underlines the importance of local knowledge in managing the region.

Population drain and lack of leadership result in volunteer fatigue as community life relies on a small group of pro-active community members that often 'wear different hats' and juggle several social commitments and professional roles. Losing such central community figures – either because they move away or are unable to continue their level of commitment – can mean the loss of important local initiatives or social networking opportunities.

Similarly, the sense of 'not being listened to' by decision-makers or the lack of central leadership in progressing local projects can lead to people disengaging from community initiatives.

The stakeholders

Questions: Who are the stakeholders in these challenges? What is their level of influence? What are some of these stakeholders' resources/ perspectives?

Farming is the biggest economic contributor in the Shire but 50% of the community don't understand it'

Key stakeholder groups	Existing roles or interests	Level of influence in this challenge	How much are they currently engaged with the challenge?	What resources/ capacity do they potentially offer?
Community **e.g. Local retailers association**	North West Sustainability Progress Association/Chamber of commerce [not existent] Stone's Throw Café Home Hardware	Low none		Funding dog-free spraying Brings people together
Community other	**CWA** **Sporting clubs** (Rugby; little A's swimming club; Pony club, touch footy) Café 64- Disabled café [?] Men's shed Local Lands Council **Show Society** Garden Club; Sewing, Art and Book groups	none	High (sporting clubs)	Social interaction, support Rodeo Jockey club Group together to source funding to create paid positions to servicea collective of groups. Es Officer, secretary, Treasurer, 3-5 year term.

Key stakeholder groups	Existing roles or interests	Level of influence in this challenge	How much are they currently engaged with the challenge?	What resources/ capacity do they potentially offer?
OTHER	Rowena fireworks Charity Day Burren Junction Breakfast Club Men's Mental Health			
Industry **e.g. Farmers, Processors, Consultants, Cotton Industry**	Cotton Grower Association NSW Farmers	low	Medium Graincorp stopped their community program Breakfast club	Information, cash, support
Governance **e.g. Federal/state/ local government**	Local Tourism, Local Land Services Rural Financial Counsellor Crown Lands Walgett Shire Council (WSC)	Medium Low Low Should be community leaders	WSC becoming more engaged Mental health;	Funding Set up office hub in towns – day care availability- purpose built centers Infrastructure – water recycling Plenty of resources but it would appear to be limited capacity to provide services (WSC).
[Environment	Landcare? Water Management? MDBA	low	low	

Important community assets, inputs, and strengths

Questions: What makes you resilient as a community? What are some of the most important community assets, inputs, and strengths?

The participants listed the following existing community assets and strengths:

Our people and their networks: People in the community are educated, passionate, creative, innovative, funny

Community coherence: Sporting clubs and show society are very active and important for bringing people together. Rowena fireworks; School fundraisers have been able to keep a second teacher employed (CWAs were also mentioned in the stakeholder notes).

History and culture: Agricultural innovation occurred right in Walgett; Indigenous culture- black and white need to be coming together and celebrate Indigenous culture

Environment: Our farming land, the rivers, the Artesian Basin and the bores – need to be celebrated

Ideas to improve on opportunities and address challenges

Question: How does this relate to and how could it help with addressing our key challenges? Who could do this?

The participants listed the following ideas and recommendations:

Community

- Council to take more leadership in progressing projects
- Need a local facilitator/ coordinator to help drive things and to link up groups and events to break down barriers and strengthen the groups' influence. For example, there could be a **paid community officer employed by Council**?
- **Community newsletter** to keep everyone informed about what is going on in town – cover good news that make people feel good and motivated about their community → **approach local newspaper**?
- Be more proactive and inclusive about communication between and across industries, silos and groups. For example, farmer groups (CRDC, GRDC, CGAs, NSW Farmers) could invite townspeople/ Council reps to meetings
- Create meeting hubs, cafes, pubs etc/ Facebook group for community events and newcomers → approach Alannah [?] from tourism committee
- Improve education about agriculture for local people

'We need 'new blood' – new people to take on roles in the community'

Governance:

- Need more **local involvement** and representation in Council
- Council could run/offer courses on facilitation/ leadership skills to help in establishing associations/ community hubs etc
- Water governance – different regulations in Western and Eastern Walgett. There is Council Water and State Water – This needs to be simplified [??]
- Foster cross-industry collaboration for info and support
- Establish a Chamber of Commerce for local retailers
- Formalise volunteer roles – for instance the Tourism Committee

'The community needs a leg up to help establish hubs and initiatives'

Environment:

- Better water management – invest in water recycling plant
- The rivers and the basin need to be celebrated more/ marketed better.
- Places (i.e. the bores) need to be maintained much better, places need to become more attractive. But community needs to share responsibility for places too – look after them better to develop a 'pride of place' – this refers both to natural assets as the maintenance of public spaces.
- Need more meeting places, cafes, pubs etc and halls that can be rented/used for multiple purposes

Economic:

- Chamber of Commerce to make joint decisions
- Invest in water recycling plant – to create jobs and make Walgett 'future proof'
- Invest in places, experiences to attract and keep tourists

Tourism: Jobs in tourism can help replace lost agricultural jobs and travellers bring business into town. Improving local tourism to Walgett needs more and improved marketing and asset management to attract people and make them stay.

Ideas:

- Need to build tourism around local industries – for example through farm experiences/ tours and displays – People will learn more about rural communities and agriculture and help break down existing barriers/ improve understanding and appreciation through tourists experiencing rural life. **→ Council; private operators with funding?**
- Aboriginal tourism – will restore culture, purpose, pride and create employment opportunities for Indigenous people **→ Council; private operators with funding?**
- Need more communication/ information on what's on in town: **Alannah from tourism committee could help? Newsletter**

What the cotton industry can do to support community resilience

Question: Can Cotton be a voice for communities at different levels?

Those present at the focus group agreed that Cotton was a good industry for Walgett and but that the industry needs to improve its reputation and maintain its social licence by becoming more pro-active in controlling the 'messaging' about cotton with positive information.

- Educate the public: Provide experiences and influence values held about cotton in the general community, i.e. amount of water used
- Highlight the importance of cotton – its many uses and benefits
- What are 'feel good stories' about cotton?

Cotton industry could also be more pro-active by:

- supporting outlying communities (in the region?) that need support
- partnering with other industries to help diversify options and support existing ideas and initiatives
- becoming a leader/coordinator/ broker of such relationships and initiatives
- invest in local water recycling plant

Walgett priority actions areas:

1 Improve opportunities for participation in local decision-making and Improve connection/ coordination of community level groups and networks

2 Diversify industries/ income sources

3 Build community capacity and keep it local (projects and skills)

4 Improve connection and coordination of existing services and programs

Frameworks for action for local priority areas - Walgett

Priority action area: need a grant writer/ coordinator to access project funding – this to help with other priority areas as well

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
Establish a Steering Committee for Walgett Shire	Shire wide – include smaller towns and stations	Representatives of towns and businesses (includes council and independents) include Satellite towns and stations (Rowena, Lightning Ridge, Collarenebri, Walgett, Cumborah, Burren Junction, Carinda, Pilliga, Come by Chance, Pokataroo, Cryon, Glengarry)	Now: Write one-pager to council GM (Greg Ingham) and copy to all councillors Find out what support will exist for: Satellite meetings Paid grant writing position Shelf of ideas (for community-based projects) Invite town reps – who? (council, farmers, local biz, Ridings reps) - allow for a nomination period locally Establish Committee Inaugural meeting(s) (might need 'satellite meetings') brainstorm about position of grant writer/project manager accountability; reporting + review structures write a position description	Bring back 'ridings structure' to ensure equal representation	Committee established Meets regularly PD for Grants writer/ project manager finalised (and submitted to council?) A strategic plan developed

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
			and then Quarterly meetings – use workbook structure to facilitate? Collect ideas for grants/ projects Develop a strategic plan		
Get a full time Grants Writer/ project manager position and employ someone coordinator position to coordinate and 'shelf' community ideas to match with relevant grant opportunities They could also travel to ensure satellite towns and stations are represented	Local Independent or with Shire	Experienced fulltime grants writer Ideally a local person with local knowledge and networks and community engagement training	Make a submission to Council to flag the idea and source funding (see above one-pager to GM) Committee to write a position description Raise money from a number of organisations? Could split costs with Council ? I.e. landcare could donate a laptop?	$150,000/ annually Car Office space laptop	A full-time grants writer/project manager is employed More successful grants Getting feedback and being able to tweak existing proposals to learn and resubmit
May need paid admin support staff for accounting, insurance etc					

Resilience assessment report Warren

April and November 2019 at Warren RSL

<u>Who was there:</u> Cotton Info Extension Officer; Kenmark Communications; Warren Shire Council; Cotton Australia, Macquarie Valley CGA, Warren Show Society, various other community roles; Photographer from local paper

Apologies: Warren RSL

Understanding and linking the challenges

Questions: What are the main challenges for your community right now and into the short to medium term future (10-20yrs)? What are the impacts?

In this first group discussion participants listed some of the main challenges currently facing their community. While they prioritised these challenges at equal levels, they have been ordered in the table below according to overarching themes and relationships between these challenges. In the following section, these challenges are also outlined with a focus on their economic, social and environmental dimensions, based on notes from the discussions.

The challenges

Water			
Population decrease	Community		Governance
Boom-bust industry (cotton) How to survive the bust?	Disconnects/lack of coherence between community groups	Lack of opportunity for participation/ deliberation (existing opportunities are intimidating/ too formal (Council) and not inclusive)	Lack of leadership/ direction from Council
Lack of employment, education opportunities	Lack of meeting spaces: too much (negative) interaction happens on social media and not face-to-face		Not enough info on what support/grants are available – grant sources often add a rushed nature to projects
		Community needs sense of direction – a 'collective point' or common denominator to bring them together in action	
Loss of skilled workers, services and young people	Facilitation of meetings/ interactions/ groups is needed		Need better communication
Diminishing liveability: Loss of clubs, schools, sporting teams, social networks; opportunities for youth, school leavers, women	Volunteer fatigue: there's too much going on and people don't feel they can make a difference – it's always the same businesses contributing		Disconnect or 'silos' between industries and local groups
	Lack of (Indigenous and non-Indigenous) youth engagement	Proactive change can be an uphill battle because there is not a lot of support in town	
Proximity to Dubbo: depleting local services	Not enough services for women/mothers		

'There's a lack of vision, a lack of forward thinking in Warren. We need more people and businesses with ideas'

Linking the challenges

Climate variability and the availability of water are central challenges that impact community resilience as they cut across economic, social and environmental pillars of sustainability and interactions between them. Water is a political factor on a range of levels. However, as the discussions revealed, water is not the only challenge, nor is 'fixing water' the only possible solution to the challenges listed by the participants.

Economic: Where local economies are highly water dependent and lack in diversity, uncertain availability of water leads to loss of income and therefore loss of local employment and education and training opportunities, which in turn lead to decreasing populations as skilled workers and young people move away from the region. Decreasing populations lead to loss of services and decreasing locally liveability, with severe social consequences, including the loss of social networks anchored around schools and sporting clubs, and inadequate medical service coverage.

Environmental/ economic: The wetlands/ Macquarie marshes were mentioned as important environmental assets in Warren with the potential of creating job opportunities in tourism. Indigenous Tourism opportunities are strongly linked to these assets and opportunities.

Keeping the town attractive includes employment and education opportunities as much as housing availability and other physical and social aspects (attractive public spaces, social meeting places) that make people want to live in Warren.

Social: Decreasing populations and community fragmentation weaken the ability to draw on diverse knowledge and experiences to **develop innovative ideas** and **act collectively** for improving local issues and to strengthen the community's political influence. Indigenous populations in the regions are still disadvantaged due to several reasons and this creates a social problem impacting the whole community.

Population drain and lack of leadership result in volunteer fatigue as community life relies on a small group of pro-active community members that often 'wear different hats' and juggle several social commitments and professional roles. Losing such central community figures – either because they move away or are unable to continue their level of commitment – can mean the loss of important local initiatives or social networking opportunities. Some initiatives lose their creative momentum because there is a need for 'new blood' and new ideas coming in but there are not enough opportunities for engaging youth into the community space.

Similarly, the sense of 'not being listened to' by decision-makers or the lack of central leadership in progressing local projects can lead to people disengaging from community initiatives and experiencing volunteer fatigue (e.g. skate park initiative).

Participants discussed a perceived **lack of shared vision** in and for the community, and this led to a sense of fragmentation in the community and between groups. **Opportunities for participation** were perceived as insufficient and that Council-community interactions at meetings and other opportunities for collaboration required **targeted facilitation**, potentially embodied in the role of a community engagement

officer, to overcome these limitations. Additionally, whilst the discussion revealed that Council is proactively engaged in many community concerns, this was not sufficiently communicated, and most of the community might not be aware of existing Council-driven initiatives and opportunities for participation. The **availability of grants and other funding opportunities is not communicated strongly or prominently enough,** and community groups require a degree of support when submitting funding applications.

Too much interaction in town happens via social media such as Facebook and that does not contribute to positive interactions. There is a need for **more meeting places and venues facilitating face-to-face community interactions**: "We only have the RSL Club".

Proximity of Dubbo is a problem because people tend to utilise the services available in Dubbo over those in Warren, thereby accelerating **decline of businesses and other local services and amenities**. Many sporting clubs, for example, might be out of town and are therefore not accessible to some young people who are not able to travel there independently and are reliant on their families to drive them.

The stakeholders

Questions: Who are the stakeholders in these challenges? What is their level of influence? What are some of these stakeholders' resources/ perspectives?

Key stakeholder groups	Existing roles or interests	Level of influence in this challenge	How much are they currently engaged with the challenge?	What resources/ capacity do they potentially offer?	Gaps
Community e.g. Local retailers association	Chamber of commerce Job agencies Women's Groups i.e. 'Bush mobility' Men's Shed Rotary, Lions, View Club	Low Medium to high medium	Membership base has slipped (CoC) Medium to high medium	Networking, providing employment opportunities, venues	need to improve membership levels and clarify their purpose
Community other	Outback Arts Youth Foundation Show Society Marthaguy community Hall / NEV	Low Low Low High	low highly engaged medium consistently engaged	Outback Arts: not Warren focused Youth foundation: high potential, relies on only 2 people Show is just one day Social functions	No succession; Interagency - subcommittee action Group Show society old fashioned Volunteer fatigue
OTHER	Various sporting groups Church/ youth	Medium/high	medium	Access to large proportion of community – important networking	Age brackets – high school not enough for other age groups

Key stakeholder groups	Existing roles or interests	Level of influence in this challenge	How much are they currently engaged with the challenge?	What resources/ capacity do they potentially offer?	Gaps
	groups			opportunity	
Industry e.g. Farmers, Processors, Consultants, Cotton Industry	Cotton Grower Association SOS Macquarie (spraydrift) CWA MRFF	All: low			
Governance e.g. Federal/state/ local government	Council State gov	High	high;	Funding opportunities Local issues	Need better communication about opportunities and facilitate grants submissions
Environment	Riversmart, marshes				

Important community assets, inputs, and strengths

Questions: What makes you resilient as a community? What are some of the most important community assets, inputs, and strengths?

The participants listed the following community strengths and assets:

Our people and their networks:

- Council is proactive about many place improvement initiatives
- Council is willing to listen
- Farmers are good at planning ahead and adapting.
- People in the community have different skills, ideas and influence
- We have a lot of existing groups, initiatives and events (the annual show, the annual triathlon, the Warren Cup)
- Women and mothers' groups link across many 'social boundaries' and can be a connecting factor for people and groups that don't normally interact

'Farmers are good at planning ahead adapting.

We're in a boom and bust situation (with water). It's about how to survive the bust'

Community coherence: Sporting clubs, church groups and show society are very important for bringing people together, and despite a general feeling of lack of coherence, there are examples to the contrary where community has got together to act for a shared cause (funding a young person to travel to a swimming competition; helping to organise, feed and house 6,000 visitors that descended on Warren for the Country Rugby League match)

There are some very generous individuals that donate their money and time to community causes (i.e. Warren Youth Foundation)

Environment: The wetlands and the Macquarie Marshes – there's an existing Cotton Grant that has been used to improve access and the Wetlands Café as an access point and community meeting place.

Existing infrastructure includes the racecourse and the 'Warren Cup' event; the new park improvement and pool.

Ideas to improve on opportunities and address challenges

Question: How does this relate to and how could it help with addressing our key challenges? Who could do this?

The participants listed the following ideas and recommendations:

Community

- Need a 'community champion' (local facilitator/ coordinator) to help bring community together, to act as independent intermediary between Council and community, and to link up groups and events to break down barriers and strengthen the groups' influence.
- Need for a dedicated **Community Engagement Officer employed by Council**
- **Community newsletter** to keep everyone informed about what is going on in town – cover good news that make people feel good and motivated about their community → **approach local newspaper?**
- Need to create a shared vision or 'collective point of identification' to bring community together and galvanise ideas and actions – this could be a task for both Council and members of the community/groups
- Be more proactive and inclusive about communication between and across industries, silos and groups.
- Create meeting hubs, cafes, pubs etc/ Facebook group for community events and newcomers → i.e. revive mothers' groups and playgroups
- Groups and initiatives need succession planning in place – particular where they rely on just one or two individuals – and they need renewal: 'new blood' for new ideas.
- This links to engaging young people more into the community space and empower young volunteers; starting with provision of local programs and activities targeted towards young people and school leavers. Youth leadership courses were mentioned.

Governance:

- Council needs to be more pro-active in communicating the work they're doing and be more explicitly open to working with community by making meetings, decision-making processes and grant opportunities more accessible for community
- Community Engagement Officer in Council to help bring community together/ develop a shared vision for Warren community
- Council could run/offer courses on facilitation/ leadership skills to help in establishing associations/ community hubs etc
- Foster cross-industry collaboration for info and support
- Formalise volunteer roles – for instance the Tourism Committee

Environment:

- Keeping town physically and socially attractive – employment and education; housing; more meeting places, cafes, pubs etc and halls that can be rented/used for multiple purposes
- Places need to be maintained much better, places need to become more attractive.
- Market the wetlands/ marshes
- Improved youth engagement; local programs and activities targeted towards young people and school leavers (i.e. job-ready programs; sponsor local business to enable them to offer internships/traineeships).

Economic:

- Encourage people to shop/ do business locally
- Create incentives for new businesses in Warren (i.e. with a focus on social meeting spaces: local sports, cafes etc)
- Need more communication/ information on what's on in town – other than Facebook. Who could do this?
- Create more local experiences/events that bring people to Warren and galvanise community efforts behind them

What the cotton industry can do to support community resilience

Question: Can Cotton be a voice for communities at different levels?

Those present at the focus group agreed that Cotton was an important industry in Warren and that the industry needs to become more pro-active in controlling the 'messaging' about cotton with positive information.

- Educate the public: Show-and-tells for media representatives; provide face-to-face experiences, open farm experiences, industry days etc to show people 'how cotton works' influence values held about cotton in the general community, i.e. amount of water used
- Highlight the importance of cotton – its many uses and benefits; example of the recent fashion show [?]: this could be good way of promoting cotton and getting a positive message out
- What are 'feel good stories' about cotton?

The participants agreed that many of the issues and opportunities discussed couldn't be too 'cotton centric' because they weren't directly related to the cotton industry. On the other hand, participants saw several ways in which **cotton could help building on and supporting community strengths**, for example by:

- becoming a **coordinator/ intermediary to facilitate community,** groups and community/ Council relationships and initiatives
- lobbying or funding a Community Engagement Officer role

Warren priority action areas:

1 Improve opportunities for participation in local decision-making

2 Improve connection/ coordination of community level groups and networks

3 Build community capacity and keep it local (projects and skills)

4 Protect environmental assets

Frameworks for action for local priority areas - Warren

Priority action area: Improve opportunities for participation in local decision-making

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? levels'? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
(Create?) Dedicated Community Engagement Officer Role Use all forms of communication	Local Council Industry groups Community groups – requires possible funding across many areas	Council Industry groups Community groups – requires possible funding across many areas	Need to scope out the right person Put together a proposal (for the role description) Get an indication from the community – would they use this person?	Funding required: Position Office space Other resources	More people are getting involved in community projects, events etc
Community Engagement Officer – Dealing with spot fires Working closely with Economic Development Officers Facilitate communication between/ across different community groups And being a point of contact / conduit for people to council to facilitate communication	Yes, needs to be someone local, from the community (with existing networks etc)	Council Community groups Sporting, cultural, youth organisations Individuals	Council Question time fortnightly or as required and monthly updates on projects as needed		Grant successes for local projects
Employ new Community	Warren Shire Council	Warren Shire council	NOW:		

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? levels'? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
Engagement Officer or Economic Development Officer	Council or Independent agency not just an individual, requires long term vision of this role	Economic Development Officer Interagency meeting	Develop clear position description Advertise Employ Revive Interagency		The officer is employed and actively engaged in community Council promotes the role and provides access and support Practical assistance Civic leadership actively engaged in promoting grant processes etc.
Foster positive Community leadership and agri leadership Promote 'Active listening'	Local	Warren Shire Council Ag Industry	How can Council and ag business contribute to building/ strengthening community and community wellbeing? Help community to feel empowered?	Requires access to govt services Agribusiness contribution	New grassroots employment opportunities Community feels empowered There is good communication – not just on facebook!

Additional comments:

government/community funding of services is not done sustainably for communities

Need leadership across different areas: youth; agriculture, environment, education – need more than one 'champion'

Need to understand resilience as an ongoing process – not just something to act on in times of drought etc – but needs to be built and maintained during the good times too.

Priority action area: Build community capacity and keep it local

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
Organise and run grant writing workshops	Local	Community champions Volunteer organisations Council	Short term: Identify who would participate Source facilitator and funding (?) to run Medium: host workshop	(Work with?) Other towns/councils and their skillsets (i.e. a facilitator?) Venue	Attendance at workshop Positive workshop feedback More grants application submitted More successful applications More community-led projects and activities
Establish Think tank on grower education and industry messaging	Local Industry level (e.g. CA;CRDC,DPI)	Growers Suppliers (Cotton Grower Services ; Ag and Vet) CRDC Cotton Australia DPI Local Land Services	Short-term: build awareness/ promote why the Think tank is needed/ important Medium term: Host think tank Long term: Development of Education/ Communication Strategy	Coordinator (from existing role or new project – requires $$$ Contact lists of stakeholders Facilitators/ educators Media / social media (for promotion ?)	High attendance at Think tank meetings Number of people contributing Assessing community perception of ag industries (local, broader, state)
Leadership program to build skills in Advocacy Communication Representing industry and community A solutions-focussed approach	Local Industry wide	Key community/ industry champions Facilitator/ educator role, college; cotton Australia, CRDC Mentor from within industry – i.e. any existing leaders	Short: identify local community champions (existing and potential) Medium: build a program/framework – engage an external provider to do this Deliver program	Coordinator / project officer Provider to deliver program	High levels of attendance/ engagement Positive feedback Mentor feedback More/ improved industry representation + leadership

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
			Long term: follow up and support of participants/ mentoring		
Start/maintain a Warren Rural Support Network – this needs to be long term/ ongoing and sustainable, not just active during times of adversity Revamp interagency to include community members and groups Make industry groups/ interagency work more visible	State gov (Local Land Services and DPI) Industry bodies Local/ LGA Macquarie Valley Community	Local gov State gov (Local Land Services and DPI) Cotton Aus CRDC Local Champions			
Grant writing assistance/ hands on help	Local State govt	Local council Govt department MDBA position could help with this (i.e. the Regional engagement officers?) Local knowledge needed	This could be started/ happen now – work with local Economic Development Officer And if a position was funded by MDBA	Position funding from council More than currently allocated to such a role	Community groups can access grant writing help More successful grants coming into community
Governance/ leadership training	Local And industry bodies (?)	Sporting groups Associations Clubs	As soon as funded	Funding required for facilitation	Training takes place

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
(this is already happening in corporate context but attendance is low)	Need to approach other funding bodies??		Need to find out about relevant funding sources Subscribe to easygrants.net.au		
Improve local youth engagement Support operation of WYF (Warren Youth)	Local Funding could also come from other levels – there's a link to CSU Dubbo	Industry Council Whole of community Youth Sports groups etc	Now, i.e. support youth into leadership positions in sporting groups etc	Don't know	Local population is getting younger, i.e. More young people staying and/or returning to Warren
Advocacy to reduce regulations etc negatively impacting community group actions					

Priority action area: Protect environmental assets

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? Or does it require action at 'other levels'? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
Memorandum of Agreement between RiverSmart/ Shire RiverSmart – Farms	Local	Local schools And beyond Local Land Services	NOW	Windows on Wetlands centre	

What are some tangible actions? *This could be one action or several related ones*	Is this a local action? Or does it require action at 'other levels'? *If so, who can we approach to get this started?*	Who needs to be involved?	When can we do this? *(i.e. what are short-term actions, what are more medium-term actions?)*	What are resources required – and where can we find them? *(What support mechanisms are there already?)*	Indicators of success – How do we you know that the action(s) are working?
To collaborate/cooperate on projects relating to: Education Better outreach		State Water Aboriginal Groups			
Aboriginal participation – Marshes boardwalk	Connection to county		Generate ongoing funding	Capacity building of principals/teachers Introduce environmental education/local site walks etc into curriculum Provide cultural awareness training – (have created a new action item for this)	
Introduce environmental education/local site walks etc into school curriculum Provide cultural awareness training and general capacity training for principals/ teachers	State level – school curriculum changes Or is it more an issue of implementation – i.e. it's in curriculum but can be interpreted				

General comments: Warren needs to diversify income streams to be more economically resilient – i.e. agriculture, tourism, heritage attractions.

'Water' is too divisive … need to educate and appreciate **how environmental water** can drive economic diversification = gives us a healthy river too – everyone benefits not just the big ag corporations.

Appendix 3: Actions from the sector stakeholder webinar and survey, April 2020

Three overall action areas were identified at the sector stakeholder webinar in April 2020. The following table compiles suggested actions for different sectors/organisations, as they emerged from the discussions and post-webinar survey.

Action areas:

1. Arrange follow-up meetings in organisations to discuss project insights and opportunities for action
2. Establish regular engagement activities (within the cotton industry; across local councils; other groups)
3. Explore roll out of workbook process to other communities

Action 1: Arrange follow-up meetings to discuss project insights and opportunities for action

Sector/organisation	Action	Detail/objectives	Partners
Cotton sector	**Cotton sector meeting** CRDC/ researcher (Jana) to set up online meeting with cotton industry representatives in late April/May	Discuss: • Clarify roles and goals in supporting community resilience. • What can a broker role look like? • The resilience assessment workbook and its roll out • Capacity to address additional recommendations for action, i.e. helping communities mobilise resources; advocacy at federal and state policy levels • Consider strategic investments, including grant opportunities to ensure project insights are used to prepare the cotton industry for future times of crisis	CRDC, CA, CottonInfo
Regional Councils	Report/share project findings and consider implications/potential for actions	• Clarify roles and goals • Explore shared interests, benefits and potential alliances • What support do councils need in reinvigorating their communities? • Capacity to address additional recommendations for action, i.e. help communities mobilise resources	Regional Councils; mayors
NSW DPI Regional Resilience Program	Report/share project findings and consider implications/potential for actions	Discuss: • What are the implications of the project findings for establishing partnerships with industry/ others? • Usefulness of the workbook • Can Program assist with its roll-out?	

Action 2: Establish regular engagement activities (within the cotton industry; across local councils; other groups)

Sector/ organisation	Action	Detail/objectives	Partners
Cotton sector	• Identify links to existing CA engagement activities • Review capacity to provide additional engagement resources (CA) • Develop a fuller map of key stakeholders/roles/ champions for regular engagement • Explore technology to assist with remote engagement	• Improve industry social licence in wider community • Utilise cotton media network as conduit for positive messages and help educate people about the cotton industry • Develop common messages to guide individual business and the CGAs' engagement • Establish closer links with local groups/councils • Consider sharing knowledge of stakeholders/ champions between orgs	CA, CRDC, CottonInfo Councils CGAs Community groups NSW DPI
Councils	• Walgett/Warren Shire Councils are awaiting confirmation of an economic development/community engagement officer for Warren/Collarenebri (subject to Federal Government funding) • Review current capacity: is there a need for additional roles in Councils? • Connect with existing and new online platforms	• Improve communication/ information relating to councils/community/business matters and distribute across the Network (i.e. Namoi News; Walgett.et; Boggabri.net and Collarenebri.net) • Find funding to extend the North West Network • Explore technology to assist with remote engagement	Councils - Business development officers – facilitation role Chambers of Commerce

Action 3: Explore roll out of workbook process to other communities

Sector/ organisation	Action	Detail/objectives	Partners
Cotton sector	• Run a second workshop on the workbook – invite others? • Consider partnerships at local, state and federal levels • Explore technology options for engagement with communities/ councils/DPI/MDBA to help extend the project findings/ roll out of workbook	• Discuss access/ custodianship of workbook • Discuss facilitation of the workbook/ working groups • Identify local/ regional community champions to help • Identify opportunities to introduce workbook to other scales: state DPIs/ federal government?	CA, CRDC, CottonInfo Consider: NSW DPI Regional Resilience Program, Councils QLD DPI?
Councils	• Explore applicability/usefulness of workbook • Explore technology for establish online meetup-portal to use for remote communication amongst councils/ communities	• Identify local/ regional community champions that could help with the roll out • Explore funding sources for this • Consider monthly online meeting of working groups (Walgett area and Narrabri Shire) using the workbook	
DPI Rural Resilience Program	• Explore applicability/usefulness of workbook	• NSW DPI could use this workbook and project outcomes to help their program	

Appendix 4: Community Facilitator – Position Description

Position summary

The role of 'Community Facilitator (Resilience Assessment)' is responsible for the facilitation of a collaborative resilience assessment process outlined in the Resilience Assessment Workbook, 'Supporting Change for Resilient Communities in Cotton Regions' (the Workbook). The Workbook was a key output from action research funded by the Cotton Research and Development Corporation (CRDC) and conducted by the Rural Innovation Research Group from the University of Melbourne in collaboration with three regional communities as well as cotton sector and other regional stakeholders from 2018-2020.

The purpose of the Workbook is to enable groups to understand and support changes occurring in their region due to particular social, environmental, and/or economic pressures. It outlines a practical and useful group process to guide potential collective action, how to work together, and coordinate your response to a challenge given different expectations, responsibilities and roles of stakeholders.

While the Workbook was piloted together with communities and other stakeholders in cotton growing regions, the workbook process is relevant and applicable outside the cotton sector. The process is primarily targeted at challenges facing regional and rural communities that rely on agriculture as key element of their regional economies. It has been tested with communities in regional (and remote)

Australia in the context of a prolonged drought but it can be used at a range of scales and will be relevant in response to a number of social, environmental and economic challenges

This position is a capacity building opportunity for an experienced and well-networked engagement professional.

Key Responsibilities

The 'Community Facilitator (Resilience Assessment)' is responsible for the management of the workbook process, including:

- Identification, engagement and recruitment of a diversity of stakeholder participants
- Connecting core participants and run activities that facilitate engagement (i.e. workshop and meeting design and related organisational tasks)
- Facilitating communication and collaboration processes with core participants towards achieving resilience assessment outcomes (during and between workshop events).
- Manage administrative tasks (including summary reporting, organising workshops and meetings).
- Based on the process outline in the workbook, refining design and delivery of the process, tailored to local/regional contexts
- Ensuring efficient and timely delivery of the workshops and delivery of reporting activities to participants
- Convene working groups and follow up with individual working groups to ensure continuity of their engagement and progress of actions between workshop events and after (capacity building)
- Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities.

Selection Criteria

- Existing local knowledge and networks in and beyond the community or group wishing to undertake the resilience assessment (desirable: networks across scales, i.e. industry, local government, local businesses, not-for-profit organisations, regional bodies)

- Stakeholder engagement skills
  - o Track record in initiating and establishing partnerships and networks and maintaining effective relationships with a range of people and organisations associated with rural, regional and agricultural industries and communities (including community organisations, farm businesses, local government, not-for-profit and environmental organisations, industry bodies and other stakeholders).
  - o Proven skills and experience in workshop facilitation with a range of stakeholders
  - o Knowledge, skills and experience of working collaboratively with a range of stakeholders
- Experience in extension and/or stakeholder capacity building
- Demonstrated experience in project management and administration, including

  - o Proficiency in small team management

  - o Proven communication skills

  - o Strong negotiating skills

  - o Demonstrated risk management skills

o Proven skills in report writing and delivery of other outputs in a timely and efficient manner

Special Requirements

➢ May involve some regional travel
➢ This role is event-based and therefore involves some intensive work periods

Time plan and estimated costings for the position

Estimated time frame: 6-12 months to maintain ongoing stakeholder engagement and allow for appropriate follow-through of actions identified through the Workbook process.

Time commitment: 100+ hrs @ $80 -$100 per hr, including stakeholder recruitment, workshops, administrative tasks, ongoing engagement throughout the project's duration (i.e. facilitation of working groups between workshops)

Overall costing estimate $8,000 - $10,000 plus workshop costs (approx. $2,000 for two 4-5 hour workshops, venue and catering) = $10,000 - $12,000

Appendix 5: List of industry and scientific publications, presentations, extension activities and other outputs.

Milestone reports:

- Milestone 1 – 30/11/2018: Establishment of Project Advisory Panel; Human Ethics approval; Case study selection
- Milestone 2.1 - 30/05/2019: Form cotton community working teams (final selection of case study communities and first round of workshops in the regions); Interview community stakeholders; Assess nature and extent of community strengths, i.e. social capital; networks; innovation capacity; Cotton community stakeholders upskilled in resilience thinking and approaches
- Milestone 2.2 - 30/11/2019: Run resilience assessment workshops in each case study community; Resilience assessments completed for 3 cotton communities; Three frameworks for local action developed as part of the community-based resilience assessments; Developed draft e resilience assessment workbook and trialled by the participating communities; Identified opportunities for the cotton sector to support existing community strengths and their further development.
- Milestone 3.1 – 30/04/2020: Cotton sector workshops: 2 April 2020 and 12 May 2020; Report on cotton sector response to community resilience assessments and cotton sector role; Identify areas for cotton sector role in community resilience over time; Develop potential cotton sector strategic actions for supporting community resilience
- Milestone 3.2 – Final report – 30/06/2020Report on synthesis of research results and recommendations for strategic action by the cotton sector

Presentations:

- 'Thresholds for resilience in regional cotton communities', presentation of project aims and progress at CRDC Science Forum, 22 November 2018, Brisbane

- 'Negotiating the triple-bottom line: resilience and social sustainability in three cotton-dependent communities in Australia', conference presentation,   Working Group 23 'Understanding Rural Community Resilience – Enabling rural communities to harness knowledge and deal with change', European Society for Rural Sociology Conference, Trondheim, Norway. June 25 – 28, 2019

- 'Supporting community resilience in the regions', conference presentation, 4th Australian Cotton Research Conference 2019, 28-30 October, Armidale, NSW

- 'Industry social licence and community resilience in Australia's cotton industry', abstract accepted for IRSA XV World Congress of Rural Sociology 2020, Cairns, Australia, 8-12 July, 2020. - postponed due to COVID-19

- Upcoming: Presentation of results from the 'Thresholds for Resilience In Regional Communities, 2020 Australian Cotton Conference -postponed to August 2021 due to COVID-19

- "Resilience in regional communities - Field trip and focus groups in Goondiwindi, Walgett and Warren' – presentation to Project Advisory Panel, April 2019

Extension resources and services:

- Resilience Assessment Workbook 'Supporting change for Resilient Communities in Cotton Regions'
- Video presentation: Supporting regional community resilience – project summary
- Video presentation: Thresholds for Resilience in Regional Communities - The Resilience Assessment Workbook and its Process

Upcoming scientific publications:

- Paper 1: A community resilience intervention in theory and practice, Ecology& Society
- Paper 2: The importance of social license in industry-driven community resilience initiatives: an Australian example, Journal of Rural studies

Appendix 6: The Resilience Assessment Workbook

Supporting Change for Resilient Communities in Cotton Regions

Resilience Assessment Workbook and Tools

1 March 2020

CRDC

Table of Contents

Suggested citation:

Rural Innovation and Research Group/ Cotton Research and Development Corporation (2020) 'Resilience Assessment Workbook and Tools for the Australian Cotton Industry - Supporting Change For Resilient Communities in Cotton Regions, Melbourne.

Cover Photo: Cotton Women (Ruth Redfern)

INTODUCTION ▼

INTRODUCTION ▼

This Workbook was developed in collaboration with three regional communities connected to the cotton sector, cotton industry and other regional industry stakeholders as well as environmental, local and state government stakeholders in the states of New South Wales (NSW) and Queensland (QLD).

The purpose of this workbook is to enable groups to understand and support changes occurring in their region due to particular social, environmental, and/or economic pressures. It outlines a practical and useful group process to guide potential collective action, how to work together, and coordinate your response to a challenge given different expectations, responsibilities and roles of stakeholders.

It is acknowledged that the effectiveness of the workbook process depends on the level of ownership participating groups take of the process itself as well as the availability of a facilitator able to manage the practicalities involved, including, but not limited to, the financial and other resources needed to convene workshop sessions, engage identified stakeholders into the process, manage communications and to coordinate follow-up actions. This requirement and how to approach it is detailed under the section 'Workshop Facilitation'.

The Workbook process has been drawn from more than a decade of work by the Rural Innovation Research Group at The University of Melbourne combined with other major resilience assessment frameworks (see Resilience Alliance 2010). It has been designed to be useful for a range of groups or project teams across a variety of scales and timelines of change. While underpinned by a theoretical framework it is written in everyday language where only basic knowledge of resilience concepts is required.

The process is primarily targeted at challenges facing regional and rural communities that rely on agriculture as key element of their regional economies. It has been tested with communities in regional (and remote) Australia in the context of a prolonged drought but it can be used at a range of scales and will be relevant in response to a number of social, environmental and economic challenges.

The case study section provides more background to the particular scenarios this workbook was applied in, providing examples of opportunities and frameworks for action developed by participants in our case study towns. These can serve as inspiration for other groups/ communities embarking on a facilitated process using this Workbook.

EXPLAINING SOME KEY TERMS

While this workbook has been designed to limit the use of jargon, some terms are explained here.

Change Challenge   This describes the specific situation you face. This situation may appear simple and straight forward or may result from interacting factors or situations. In this workbook it is assumed that in order to achieve improvement, this situation involves some significant and challenging change.

Desired Change   The type of change you want to occur. Determining the desired change involves collective assessment of the possible pathways to change, along with collective decision-making processes around the most desired change and pathways.

Resilience   Resilience as a key concept has been variously interpreted in different contexts. One generally accepted definition of resilience is the capacity of a system (a community, industry, region etc.) to absorb shocks, to avoid crossing a threshold into an alternate and possibly irreversible new state, and to regenerate after disturbance.[1]

Specified resilience   Specified resilience typically relates to specific (known) threats and shocks, such as droughts, bushfires or changing market scenarios. A linked idea is that parts of a system can be managed in ways that increase the system's resilience to particular kinds of disturbance and allow it to stay within a 'safe operating space'.[2]

General resilience   General resilience is a property of the system as a whole and does not focus on any particular disturbance or part of the system. While both kinds of resilience, specified and general, are important, making and understanding their distinction is equally crucial. For example, managing for the resilience of a particular part of the system can negatively affect the resilience of other parts or the whole system.[1]

Community Resilience   This workbook focuses on community resilience over individual resilience. While individual mental health and well-being are important aspects that may play into the ability of a group to deal with change, the community resilience approach emphasises the existing social capacity of a community, their combined skills, knowledge and connections, their ability to self-organise, and their access to resources and capacities that enable their response to change challenges. In considering the economic, institutional and social dimensions of resilience, the community resilience approach encompasses individual resilience as embedded in the larger system.

Adaptive capacity   Adaptive capacity is defined here as the ability of a community to change in ways that allow them to better manage actual, anticipated and unexpected change challenges. Importantly, adaptive capacity draws on multiple resources. These can be summarised as:

Institutional resources: local government, community or farming organisations, and other institutions

Physical resources: Infrastructure and services (roads, communications, health, education)

Natural Resources: Healthy and productive soil, water and landscapes

Financial resources: Business and household finances, access to financial assistance

Human resources: Mental and physical health, self-efficacy, skills, leadership, knowledge

Social resources: social networks with friends, family, other community members, business and cultural groups

Scenario   A possible future course regarding the challenge you are facing. There might be many possible scenarios, dependent on changes in factors such as legislation, climate, economics, consumer behaviour.

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[1] Resilience Alliance (2010). Assessing socio-ecological Resilience: a Workbook for Practitioners. Version 2.0. https://www.resalliance.org/files/ResilienceAssessmentV2_2.pdf.

[2] Rockström, J., et al. (2009). "A safe operating space for humanity." Nature **461**: 472.

ABOUT THE WORKBOOK

USEFUL TOOLS FOR YOUR PROCESS ▼

The Workbook includes some helpful frameworks and ideas for teasing out the challenges and perspectives you will face during the assessment process. Look for the symbol below where a suggested tool is provided in the 'Workbook Tools' section.

Workbook tool

WHO COULD USE THIS WORKBOOK ▼

This Workbook is set up to cover general concepts applicable to people or groups facing a socio-economic or socio-ecological challenge. While initially targeted at supporting community resilience in three agricultural regions affected by prolonged drought and attendant challenges, it can be used by groups including: agricultural industry groups, public sector organisations, farmer groups, and local community groups.
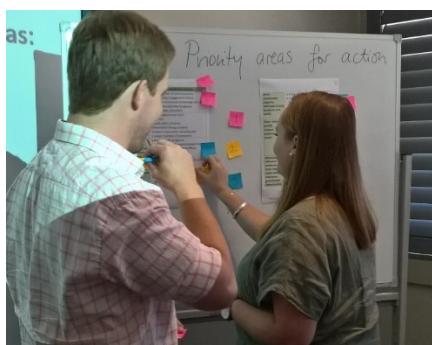
PLANNING YOUR WORKSHOPS ▼

The process outlined in this Workbook is designed to fit within two separate workshops, each of about four hours duration. Naturally your own process, and the time/resources you have available to allocate to it, may vary from this general design. You may have more – or less – time available to run your workshops, and you may wish to adapt some of the workbook components. Some workbook tools have been marked 'optional' to allow for such variations. View this document as a guide to your process, which you can adapt to your needs and circumstances.

WORKSHOP FACILITATION ▼

This workbook is designed to help you work your way through the 'messy' problem of resilience. It has been written in a way which requires little prior knowledge of resilience terminology or processes. In effect it is aimed at guiding you through the thinking process. You should consider engaging an experienced facilitator to help with the process, to keep the group moving forward while also facilitating open exchange of ideas and lateral thinking. Your facilitator will also have experience in planning an effective workshop and therefore it is good to involve them as you plan the day(s).

You can also run the workshops without engaging an external facilitator; however, it is advised that you select a member of the group to the facilitator role. This person does not have to be experienced in facilitation, but they will need to be prepared to direct the conversation and activities if things are running off course.

Ensure you decide how your discussion will be recorded. Some of the worksheets in this Workbook will help you to write down and revisit your discussions and results but you may need to nominate someone who will be keeping notes of the workshop discussion overall. It is also a good idea to share a summary of the day with participants and potentially other stakeholders interested in following up with your initiative.

Keeping people engaged with the process in between workshops and to keep momentum going is another challenge that may require a dedicated role. Additional workshops and/or convening a dedicated working group targeting such discussion, decision-making and action outcomes might be required.

The following provides a possible position description for a 'Community Facilitator (Resilience Assessment)', alongside estimated time frames and salary costings for a regionally located engagement professional.

Community Facilitator – Position Description

Position summary

The role of 'Community Facilitator (Resilience Assessment)' is responsible for the facilitation of a collaborative resilience assessment process outlined in the Resilience Assessment Workbook, 'Supporting Change for Resilient Communities in Cotton Regions' (the Workbook). The Workbook was a key output from action research funded by the Cotton Research and Development Corporation (CRDC) and conducted by the Rural Innovation Research Group from the University of Melbourne in collaboration with three regional communities as well as cotton sector and other regional stakeholders from 2018-2020.

The purpose of the Workbook is to enable groups to understand and support changes occurring in their region due to particular social, environmental, and/or economic pressures. It outlines a practical and useful group process to guide potential collective action, how to work together, and coordinate responses to a challenge given different expectations, responsibilities and roles of stakeholders.

While the Workbook was piloted together with communities and other stakeholders in cotton growing regions, the workbook process is relevant and applicable outside the cotton sector. The process is primarily targeted at challenges facing regional and rural communities that rely on agriculture as key element of their regional economies. It has been tested with communities in regional (and remote) Australia in the context of a prolonged drought but it can be used at a range of scales and will be relevant in response to a number of social, environmental and economic challenges

This position is a capacity building opportunity for an experienced and well-networked engagement professional.

Key Responsibilities

The 'Community Facilitator (Resilience Assessment)' is responsible for the management of the workbook process, including:

➢ Identification, engagement and recruitment of a diversity of stakeholder participants
➢ Connecting core participants and run activities that facilitate engagement (i.e. workshop and meeting design and related organisational tasks)
➢ Facilitating communication and collaboration processes with core participants towards achieving resilience assessment outcomes (during and between workshop events).
➢ Manage administrative tasks (including summary reporting, organising workshops and meetings).
➢ Based on the process outline in the workbook, refining design and delivery of the process, tailored to local/regional contexts
➢ Ensuring efficient and timely delivery of the workshops and delivery of reporting activities to participants
➢ Convene working groups and follow up with individual working groups to ensure continuity of their engagement and progress of actions between workshop events and after (capacity building)
➢ Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities.

Selection Criteria

➢ Existing local knowledge and networks in and beyond the community or group wishing to undertake the resilience assessment (desirable: networks across scales, i.e. industry, local government, local businesses, not-for-profit organisations, regional bodies)

➢ Stakeholder engagement skills
  o Track record in initiating and establishing partnerships and networks and maintaining effective relationships with a range of people and organisations associated with rural, regional and agricultural industries and communities (including community organisations, farm businesses, local government, not-for-profit and environmental organisations, industry bodies and other stakeholders).
  o Proven skills and experience in workshop facilitation with a range of stakeholders
  o Knowledge, skills and experience of working collaboratively with a range of stakeholders
➢ Experience in extension and/or stakeholder capacity building
➢ Demonstrated experience in project management and administration, including

  o Proficiency in small team management

  o Proven communication skills

  o Strong negotiating skills

  o Demonstrated risk management skills

  o Proven skills in report writing and delivery of other outputs in a timely and efficient manner

Special Requirements

➢ May involve some regional travel
➢ This role is event-based and therefore involves some intensive work periods

Time plan and estimated costings for the position

Estimated time frame: 6-12 months to maintain ongoing stakeholder engagement and allow for appropriate follow-through of actions identified through the Workbook process.

Time commitment: 100+ hrs @ $80 -$100 per hr, including stakeholder recruitment, workshops, administrative tasks, ongoing engagement throughout the project's duration (i.e. facilitation of working groups between workshops)

Overall costing estimate $8,000 - $10,000 plus workshop costs (approx. $2,000 for two 4-5 hour workshops, venue and catering) = $10,000 - $12,000

INVITING PEOPLE TO THE WORKSHOP ▼

Getting the right people along to your workshop is important. Think about the different people/groups who have a stake in the issue, as getting a wide variety of views is vital to appropriately assess the different perspectives. You might know that some people/groups have outspoken views, or opinions quite different from your own, but these different perspectives can help broaden a group's thinking when trying to focus in on the challenge.

It is also important that you clearly communicate the purpose and aims of the workshop and engage people around these prior to the workshop. Ask yourself why people would want to participate. Engaging people and getting them to participate can be time intensive and requires that enough effort is put into communicating in the lead up to your workshop. Be prepared to invite additional stakeholders to your second workshop (workshop B) and ensure that they can review, modify and add to the findings of workshop A.

In this Workbook there are **seven stages to the process of assessing your 'change challenge'** (Figure 1). Working through these stages has been split into two tasks for the two workshops: **'Assessing the change challenge' and identification of opportunities for action or 'A collective vision for change'**. The two stages take your group from defining the challenge and making sense of it and the different perspectives involved, to identifying different change scenarios and a scenario you collectively wish to support. The tools in part B assist you in developing a framework for actions that can be taken in the short, medium- and long-term future
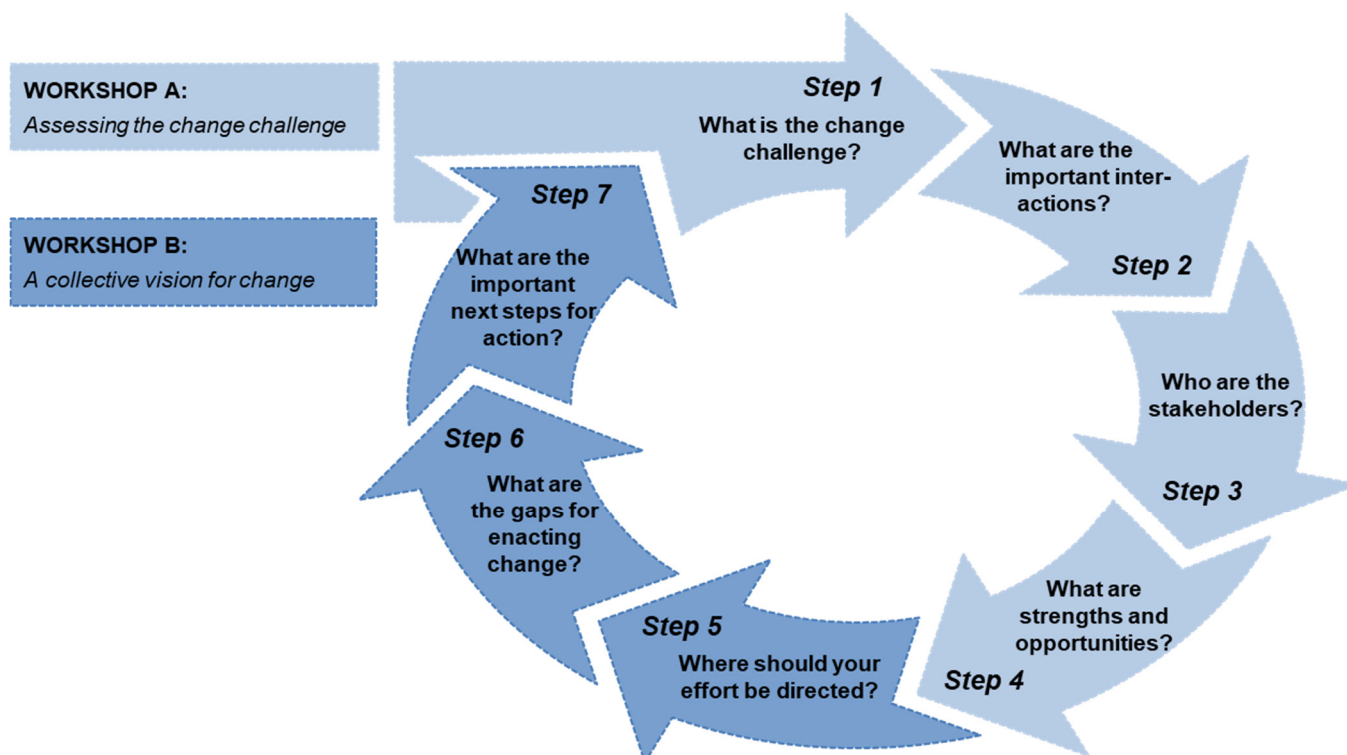

Figure 1: . Seven stages to the process of assessing your 'change challenge'

Drought in New South Wales

With a variable climate, drought has been a constant and inevitable feature of the NSW landscape. While there is no universal definition of drought, it is generally described as a prolonged, abnormally dry period when the amount of available water is insufficient to meet normal use. The current drought (time of writing March 2020) began in NSW in mid - 2017 and it is equivalent to a major drought event on the long term historical record (100 years). [3] In many regions across NSW, this drought has been declared the worst on record, with the Central West, Far West and North West regions affected the worst.[4] In the 2018-19 season, cotton farmers in northern NSW cotton valleys received 0% of their general security water allocation due to drought.[5]
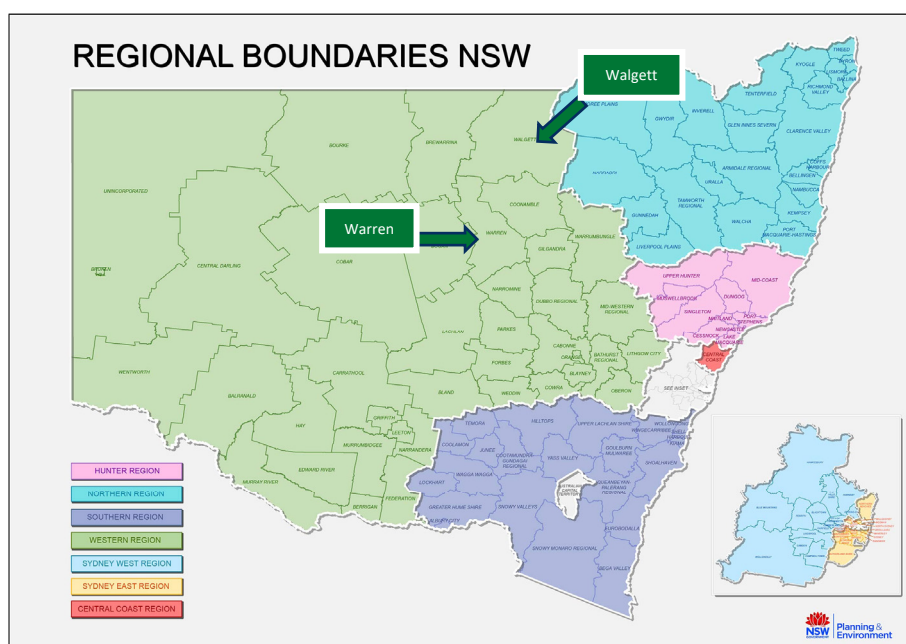

Image source: https://www.planning.nsw.gov.au/-/media/Images/DPE/Maps/regional-boundaries-nsw-2400x1685.jpg?la=en

Walgett and Warren Regional Shires

The regional Shires of Walgett and Warren are located in the Western regions of NSW. The main agricultural industries are cotton, wool, grazing and cereal cropping. Other industries include: mining, manufacturing, tourism and education. The towns and their regions were selected as case studies for the application of this resilience assessment workbook, following careful consideration of a range of factors. This included past and current experiences with change, level of impact of changes to water policy, drought and level of perceived need and potential benefit gained from particpating in this study. Another factor for selection was their location on two different river systems, Walgett on the Barwon and Namoi Rivers, and Warren on the Macquarie River.

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[3] https://www.waternsw.com.au/supply/drought-information/regional-nsw

[4] https://www.waternsw.com.au/__data/assets/pdf_file/0004/154660/Regional-Drought-Monthly-Report-Summer-2020.pdf

[5] Fact sheet: Australian cotton - Our water story; https://cottonaustralia.com.au/assets/general/Publications/Industry-overview-brochures/The-Australian-Cotton-Water-Story.pdf

Walgett

The town of Walgett is located approximately 640 kms by road from Sydney, near the junctions of the Barwon and Namoi Rivers and the Kamilaroi and Castlereagh Highways. In 2016, there were 6,107 people in the Walgett Local Government Area, with a population of 2,145 in the town itself. Aboriginal and Torres Strait Islander people made up close to 30% of the Shire's population.[6] In 2015, the town was listed as one of the most socially disadvantaged areas in the state of NSW (Dropping Off The Edge report).[7] The town is the seat of in the Walgett Shire Council. Walgett has a community college and highschool, a private catholic school and a TAFE NSW branch. In the summer of 2018/2019, due to the **ongoing drought, loss of river flows and a heat wave, Level 6 Water Restrictions were imposed** in Walgett and other towns in the Shire. Walgett residents had to rely on bore water for 18 months.

Two resilience assessment workshops were run in Walgett in April and November 2019. The diverse group of about 12-15 participants at each event included representatives from the cotton sector and other agricultural industries, Women in Cotton (WinCott) and the Walgett Country Women Association. Further, natural resource management groups, Walgett Shire Council, the Department of Primary Industries' Rural Resilience officer and other community figures. Together, the workshop participants **defined their shared challenges, community strengths and assets, and opportunities for action**. They then utilised the 'Framework for Action' planning tool (workbook tool B10) to develop, and later present, a submission to Council requesting a **dedicated local grant writing and project management position**. There were many local ideas to address current challenges, but translating these into action needs financial resources, facilitation and project management skills.

Main challenges: Walgett, like many rural and remote communities in Australia, experiences the negative dynamics of a **decreasing population**. **A lack of industry diversity and employment opportunities** leads to the loss of skilled workers and further jobs, alongside the loss of government, medical and infrastructure services. **The fragmentation of social networks is** accompanied by an **'ideas drain' and volunteer fatigue**. Cultural divides and **poor community cohesion** between 'town' and 'bush', farming families, Indigenous and non-Indigenous communities, and a disconnect between regional industries and local groups exposes issues of governance, including a **lack of leadership**. Community fragmentation weakens the ability to draw on diverse knowledge and experiences to act collectively and influence local decision-making.
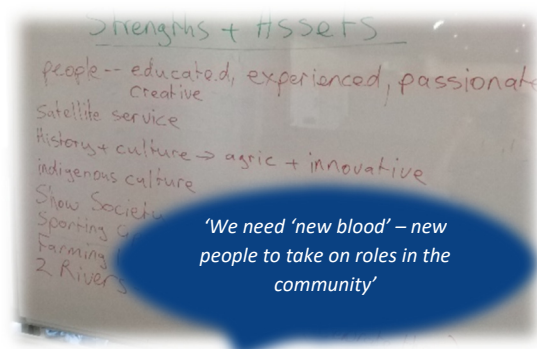
Drawing on existing strength: The people living in Walgett, their diverse experiences, passion, skills and creativity, their unique environment, and Indigenous and non-Indigenous cultural heritage, are the community's greatest assets. **Creating and strengthening community** through more meeting and networking opportunities, proactive and inclusive communication across industries and groups, increased local involvement and representation in Council, and the celebration of a **'Walgett pride of place'** were amongst the ideas and actions discussed. However, community workshop participants agreed that an essential support role (community development, grant writing, project management, community facilitation) was needed in Walgett to help drive such initiatives. **Advocating for such a role at council level** was at the centre of the **action framework** they developed. One community member created http://walgett.net/ - a website with events calendar and business directory for Walgett after the first workshop to assist better communication.

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[6] https://itt.abs.gov.au - Walgett (A) (LGA) (17900)

[7] https://dote.org.au/findings/full-report/

Warren

Warren is a town in the Orana Region of NSW, situated near the Macquarie River. It is located on the Mitchell and Oxley Highways, 120 kilometres north west of Dubbo, and is the seat of the Warren Shire local government area. In 2016, the Shire had a population of 2,732, with 1,530 residents living in town. Aboriginal and Torres Strait Islander people made up 14.4% of the Shire's population.[8] Warren has a relatively young population: 52% of people in Warren Shire were children or young adults (0 to 44), and 48% were 45 years and over in 2016.[9] A number of organisations respond to the resulting need for childcare, although workshop participants noted a lack of opportunities for older children and young adults. Agriculture as the largest employer includes sheep, wool, cattle, grain and cotton. Other important sectors are retail trade, education and training, health care and public administration.[10] Warren has several community and sports-based organisations and the Far West Academy of Sport is based in Warren. In March 2019, Warren Shire Council introduced **level 3 water restrictions** to adapt to decreasing flows in the Macquarie River.

Stakeholders represented at both the April and November workshops included: Cotton Info; Cotton Australia; CRDC; Kenmark Communications; Warren Shire Council; Macquarie Valley Cotton Growers Association; DPI Rural Resilience Program; Barnados Social Services / Outback Arts; Centre for Rural and Remote Mental Health – NSW Health; Riversmart (the Macquarie Wetlands); Warren Presbyterian and Catholic Churches; Young life Australia Warren Area and the Community Hall in Marthaguy.
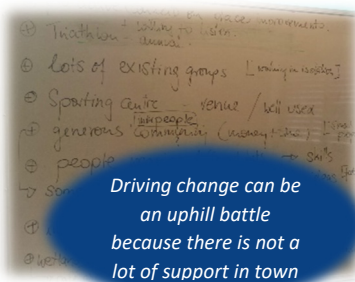
Participants described very **similar challenges** to those in Walgett around **population decrease; lack of community coherence and governance**: while they observed that Council is willing to listen and be proactive about place-making initiatives, it was also felt that Council **could improve on opportunities to provide leadership and sense of direction** in bringing community together in action, and **to address existing divides**. Creating **more meeting spaces and opportunities for communication**, deliberation and participation in local decision-making were amongst the ideas suggested to improve on local liveability and collective actions, not least to stave off the **exodus of young people** resulting from a lack of local opportunities. Crucially, losing young people leads to volunteer fatigue, **succession issues and resistance to change** in local community organisations**.**

Drawing on existing strengths: People in Warren are used to uncertain or 'boom and bust' times and are therefore **good at planning ahead and adapting**. People in the community have **different skills, ideas and influence** and there are a lot of **existing groups, initiatives and events** drawing visitors from beyond the Shire boundaries (the annual show, the annual triathlon, the Warren Cup). **Women and mothers' groups link across many 'social boundaries'** and can connect people and groups that don't normally interact. One of the initiatives out of the first workshop was therefore a revival of existing mothers' and play groups. The Macquarie marshes are an **important environmental asset** with the potential of creating **job opportunities in tourism, including Indigenous Tourism**. Increasing awareness of the importance of water beyond its agricultural production value and how it can drive economic diversification with farmers and young people, emerged as an action from the second workshop. **Revitalising groups and leadership initiatives, and offering general skills training** was the focus of another action framework developed on the day. The need for '**community champion' and coordination/ facilitation roles** at several levels to **'kick start' some of these ideas and initiatives into actions** stood out, particularly where clear roles and responsibilities or commitment to progressing action could not be identified. Additional workshops and/or convening a dedicated working group targeting such discussion, decision-making and action outcomes might be required.

[8] https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/LGA17950

[9] https://multiculturalnsw.id.com.au/multiculturalnsw/lga-population?WebID=1270

[10] http://www.warren.nsw.gov.au/business/economic-overview

OVERVIEW: WORKSHOP MODULES ▼

Workshop A

This first workshop is aimed at defining the 'challenge' you face while taking some time to step back and consider the different perspectives and roles of those involved. There may also be a complex interplay of social, economic and environmental factors to consider. In order to assess the challenge, you need to consider the following:

STEP	ACTIVITIES	APPROXIMATE TIME
1. What are current issues or challenges we face?	Workbook tool A1: Defining the challenge(s)	30 mins
2. How are these challenges linked? What are the important interactions inside/outside the region?	Workbook tool A2: Assessing interactions Exploring links and interactions	30 mins
3. Who are the stakeholders?	Workbook tool A3: Stakeholder assessment What are stakeholder perspectives and levels of influence?	30 mins
4. What are strengths and opportunities?	Workbook tools A4-A7	
Understanding your community and strengths	Workbook tool A4: Resilience indicators, community assets, inputs, and strengths.	30 mins
What opportunities for action can we identify?	Workbook tool A5: Opportunities and gaps Where do you see opportunities for action?	30-50 mins
Where are the gaps and who can address them?	Workbook tools A5 and A6: What is missing or where do you need support in developing an opportunity? What needs to change and at what levels, i.e. who can act on this change? Optional: Workbook tool A7: Mapping future scenarios	30-50 mins
Looking ahead	Plan the next workshop date(s); what additional stakeholders do you need to engage/ invite?	30 mins or after workshop

STEP 1: WHAT IS THE CHALLENGE?

Sometimes the challenge at hand is more complex than we first think, with conflicting views from different stakeholders and multiple future outcomes dependant on interactions between factors such as people, institutions, and the environment. This section provides a process for narrowing in on the particular challenge you face.

ACTIVITY: DEFINE THE CHALLENGE

Use a whiteboard or flip chart to capture a brainstorming session aimed at focussing in on the challenge. To start the discussion, ask the group the question:

"Identify the main features of this change challenge"

Particular aspects to explore during this session involve:

- What are the main issues involved in the challenge?
- What are the boundaries to the challenge? (geographically, socially)
- What is the history of the challenge? (i.e. have similar events occurred before?)
- How has the system/region/community changed over time? (e.g. water use practices, production, community, farming types)
- How have people reacted to the challenge so far?

STEP 2: WHAT ARE THE IMPORTANT INTERACTIONS?

It is important to understand the interactions within the system boundaries of the challenge you are assessing, as well as the interactions with larger-scale systems. For example, such interactions might involve the impact of State legislation on your region, or the way that broader changes in your region will affect individual farms.

ACTIVITY: HOW ARE THE CHALLENGES LINKED? WHAT ARE THE INTERACTIONS THAT IMPACT YOUR SYSTEM?

Consider the interactions which happen with your system from outside, and within. Use the questions below to explore these interactions.

- What are the main influences from larger-scale systems on your system?   e.g. The impact of State/Federal legislation, Global commodity markets, Climate factors, Environmental/animal welfare organisations
- What are the main interactions within the system that influence the challenge?
  e.g. Influence of local communities, Farmers or farmer groups

STEP 3: STAKEHOLDER ASSESSMENT

ACTIVITY: WHO ARE THE STAKEHOLDERS?

Discuss the stakeholders who are relevant to your challenge, using the stakeholder assessment framework provided to help with this. Questions to consider in regard to stakeholders are:

- What are their existing roles or interests?
- What is their level of influence in this challenge? (Low, Medium, High)
- How much are they currently engaged with the challenge? (Low, Medium, High)
- What resources/capacity do they potentially offer?

STEP 4: IDENTIFYING OPPORTUNITIES AND GAPS

ACTIVITY: UNDERSTANDING YOUR COMMUNITY AND STRENGTHS

Think about what makes your community resilient. Note down some of the most important community assets, inputs, and strengths. This can include environmental or cultural assets, past and present local industries, especially creative and innovative people, businesses or networks, a good sense of community, or popular events.

Discuss: How can these assets and strengths help your community with addressing your key challenges or achieving positive change?

ACTIVITY: DEFINING OPPORTUNITIES AND GAPS

Think about the challenge you want to address and your community assets and strengths, where do you see opportunities for actions that can help address the change challenge(s) you have identified?

`Repeat the process by identifying the gaps, i.e. what is missing or where you may need support in developing an opportunity.

ACTIVITY: DEFINING OPPORTUNITIES FOR ACTION

Having identified opportunities and gaps, what needs to change and at what levels, i.e. who can act on this change?

Optional: Depending on the time you have available, you can develop different change scenarios to help you explore your opportunities and actions. To start thinking, address these initial questions:

- What are some possible future scenarios in response to the current challenge?
- How might these scenarios play out in the short to medium term?
- And what might influence each of these scenarios becoming reality? (i.e. what are the major drivers for each scenario)?
- What types of natural and social capital need to be maintained to enable adaptation, reorganisation, renewal?

LOOKING AHEAD

Planning for the next workshop date(s) and what additional stakeholders you need to engage/ invite to that event is an important step that can take place as part of workshop A. You could also consider meeting in between workshops events, for example by convening smaller working groups that are tasked with further exploring identified opportunities for action, raising awareness for the initiative and identifying and engaging with additional stakeholders.

Warren Fish release (Amanda Thomas)

Workshop B

The second workshop will review findings from workshop A and work towards developing a plan for action. It is important to note that actions will need to happen at different scales and across different timelines. The tools in this section of the Workbook will assist you in exploring more deeply the opportunities for action identified in the first workshop and how they can be seized and turned into real-world action.

STEP	ACTIVITIES	APPROXIMATE TIME
5. Where should out efforts be directed?	Workbook tool B1: Prioritising opportunities for action Workbook tool B2: Exploring the opportunities Workbook tool B4: Identifying incentives	30-50 mins
Optional	Workbook tool B3: Ranking your change scenarios Workbook tool B5: Assessing awareness	30-60 mins
6. What are the enablers and gaps for enacting change?	Workbook tool B6: Reserves Workbook tool B7: Resources Workbook tool B8: Governance	30-50 mins
7. What are the important next steps for action	Workbook tool B9: Planning your work together	30-50 mins
Looking ahead	How are you going to maintain momentum? Consider convening a working group to coordinate follow-up meetings	30 mins or after workshop

STEP 5: WHERE SHOULD YOUR EFFORTS BE DIRECTED?

ACTIVITY: PRIORITISING OPPORTUNITIES FOR ACTION
List the opportunities or areas for action from the first workshop for all to see. Assess whether all participants agree with these opportunities.

- Do you have anything add or qualify?
- What could be additional actions?
- What are the most important opportunities/ priority areas for action?

Rank all opportunities in order of importance over time. Vote for the 3 most important action areas but keep a record of all opportunities as some may need to be explored further.

ACTIVITY: EXPLORE OPPORTUNITIES AND IDENTIFY INCENTIVES
- What is the geographic area relevant to this opportunity and what is the timescale of addressing it? (e.g. is this a 10 year challenge? 50 year?)
- What are the main drivers of this opportunity?
- Who is most affected by this opportunity?
- Who has to be involved to make this opportunity a reality?
- How can this opportunity be seized?
- Which incentives do you think are the most important in relation to your desired change? What incentives are missing or needed?

OPTIONAL ACTIVITIES:
Depending on the time you have available, you may choose to further explore what positive change would look like for you. Think about Ranking your change scenarios from the most to the least desirable.

You may also want to consider the level of awareness people may have of the challenge/opportunity you want to address and explore what other awareness factors are in place to support your desired change using this optional Workbook tool.

- What may be sources or avenues for sharing information between govts, industry and community?
- What mechanisms are in place for industry and community engagement in government policy processes?
- Are there opportunities for training and skills development?
- What awareness factors are missing or needed?

STEP 6: WHAT ARE THE ENABLERS AND GAPS FOR ENACTING CHANGE?

ACTIVITY: RESERVES AND RESOURCES

Identify the social, natural and financial reserves and resources needed to enable adaptation and renewal.

- What are the reserves relevant in relation to your change challenge?
- What other reserves are in place to support your desired change?
- Which reserves do you think are the most important in relation to your desired change? What reserves are missing or needed?

Resilience Resources

- Which resources do you think are the most important in relation to your desired change?
- Do you have access to social, natural and financial resources you can draw on to help you cope with and adapt to change?
- Resilience resources together provide you with 'adaptive capacity'. Are there areas where access to the resources could be improved?
- What resources are missing or needed?

ACTIVITY: GOVERNANCE
Use this workbook tool to assess the governance capacities that are in place (for example, regulatory arrangements, cross-jurisdictional decision-making mechanisms; community/stakeholder networks) to support your desired change.

- Which governance capacities do you think are the most important in relation to your desired change?
- What governance capacities are missing or needed?

STEP 7: WHAT ARE THE IMPORTANT NEXT STEPS FOR ACTION?

ACTIVITY: PLAN FOR ACTION
Use Workbook tool B9 to develop a step-by-step roadmap towards change. What needs to happen so that actions can be progressed? Be specific about what steps need to be taken, who needs to be involved, at what level and how you would measure success. What do you want to achieve and when?

MAINTAIN MOMENTUM
Be sure to include in your action plan: How is the group planning to stay in contact? Who will be managing group communication? How will you monitor progress on actions taken? Consider regular meetings and/or updates to maintain interest and momentum.

EVALUATE
Don't skip this step! It is important to assess how people experienced the workshop process and their ability to participate, share and learn. What can be improved about the process? What has been missing? What went well?

WORKBOOK TOOL A1: DEFINING THE CHALLENGES

What are the main challenges for your community right now and into the future (10-20yrs)?

What are the impacts?

What are the geographic and social boundaries of the impacts?

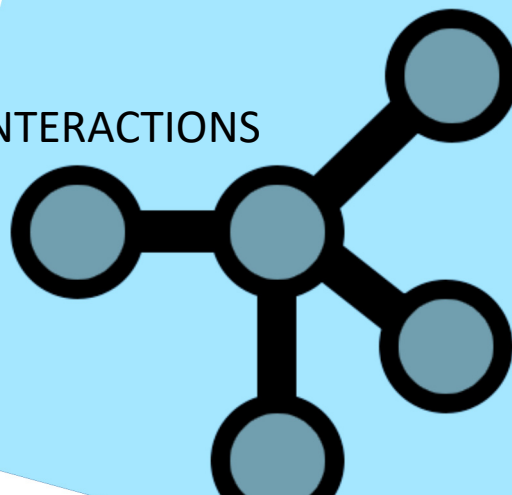**In small groups of 2-4, discuss these questions and note your answers on post-it notes.**

Collect post-its and order them thematically if possible (i.e. sort challenges regarding population; the environment…).

Photo: Family (courtesy Carly Donnelly and Cotton Australia)

WORKBOOK TOOL A2: ASSESSING INTERACTIONS

How are these challenges linked?

Are there key challenges underlying these linked challenges?

Aspects of the key challenges that we (or others) can address?

Consider how these challenges might be linked and interact. Discuss and note down on the white board.

What may be 'bigger picture issues' or key challenges underlying these linked challenges?

Explore 3 key challenges using the table below. What are key aspects that we can address?

Key challenge	What are the main influences from larger- scale systems on your system? *e.g. The impact of state/federal legislation; global commodity markets; climate factors*	What are interactions within the system? *e.g. Influence of local communities; farmers/growers or farmer/grower groups;*	Can be addressed

WORKBOOK TOOL A3: STAKEHOLDER ASSESSMENT

Who are the stakeholders in these challenges?

Who is affected and how?

Think about what might be their interests?

What main roles or kind of influence do they have in respect to the challenge?

How much are they currently engaged, and what resources do they potentially offer?

Use the table provided to note down your responses.

When planning your next workshop, return to this list and invite key stakeholders identified.

Key stakeholder groups	Existing roles or interests	Level of influence in this challenge (Low, Medium, High)	How much are they currently engaged with the challenge (Low, Medium, High)	What resources/ capacity do they potentially offer?
Community e.g. Local retailers association				
Industry e.g. Farmers, Processors, Consultants, Cotton Industry				
Governance e.g. Federal/state/ local government				
Environment				

OPTIONAL WORKBOOK TOOL: STAKEHOLDER PERSPECTIVES

If you have the time available, you may wish to deepen your understanding of the stakeholders in the change challenge you have identified. This may help your future engagement with additional stakeholders and to understand existing networks and connections – or where new connections could be initiated.

Get people in your group to take the role of different stakeholders (if some stakeholders are not present, try to represent their perspectives). Capture each stakeholder perspective as a summary of around 30 words and note the connections that exist and don't exist between stakeholders.

	30 word summary of their perspective on the issue	Which other stakeholders are they closely connected to?	Which other stakeholders are they not connected to?
Stakeholder 1			
Stakeholder 2			
Stakeholder 3			

WORKBOOK TOOL A4: RESILIENCE INDICATORS, COMMUNITY STRENGTHS AND ASSETS

What makes you resilient as a community?

Important community assets, inputs, and strengths

In groups of 2-4 people, discuss what a resilient community looks like. Note down some key indicators of resilience.

Think about what makes your community resilient. Note down some of the most important community assets, inputs, and strengths.

Your analysis

How can these assets and strengths help your community with addressing your key challenges or achieving positive change?

WORKBOOK TOOL A5: OPPORTUNITIES AND GAPS

Thinking about the challenge and your community assets and strengths, where do you see opportunities for action?

List these and then choose 3 that the group feels are the most important.

Repeat the process by identifying the gaps, i.e. what is missing or where you may need support in developing an opportunity.

Opportunities	Top 3	Gaps	Support/resources needed

WORKBOOK TOOL A6: WHAT NEEDS TO CHANGE AND AT WHAT LEVELS, I.E. WHO CAN ACT ON THIS CHANGE?

Drawing on your discussions and the stakeholders, top 3 opportunities and gaps you have identified, you can now develop a more detailed map of opportunities, stakeholders and suggested short to mid-term actions.

Opportunities	Key challenge addressed and Purpose/ details	Who (stakeholders and influencers)	Suggested short-mid-term actions
For example: Continue to identify and engage community stakeholders	Community is fragmented/ not engaged Improve communication		Meetings with local councils to present project aims and social research findings Additional community meetings
Develop and formalise action plan and future goals	Maintain momentum; build trust and sense of collective agency		

OPTIONAL WORKBOOK TOOL A7: MAPPING FUTURE SCENARIOS

This optional activity allows you to further explore future scenarios. Think about the following questions:

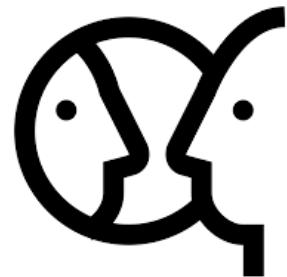|	What are some possible future scenarios in response to the current challenge?	How might these scenarios play out in the short to medium term? (5-10 yrs)	And what might drive each of these scenarios becoming reality?	What types of natural and social capital need to be maintained to enable adaptation, re-organisation, renewal?
Scenario 1				
Scenario 2				
Scenario 3				

OPTIONAL WORKBOOK TOOL: KNOWING YOURSELF

Questions to consider
What kind of change do you wish to enact? e.g. incremental; large leap (transformation)
What kind of role do you expect to take in the change process? e.g. leadership; building capacity for others to lead
What kind of trade-offs might be required for stakeholders before this change can occur? e.g. incentives for change

WORKSHOP B – A COLLECTIVE VISION FOR CHANGE ▼

WORKBOOK TOOL B1: PRIORITISING ACTION

Revisit the list of opportunities (or threats) that were identified in workshop A. In groups of 2, discuss the action areas, asking: Do you have anything add or qualify? What could be additional actions? What are the most important opportunities/ priority areas for action? Rank all opportunities in order of importance over time.

Vote for the 3 most important action areas. For example:

Opportunity/ action area	Suggested actions
Improve opportunities for participation in local decision-making	e.g. create more meeting opportunities/ events; improve information about local initiatives, debates
Diversify industries/ income sources	e.g. explore potential of running farm experiences/ tours; Aboriginal tourism; alternative energy projects
Improve connection/ coordination of existing services and programs	e.g. Cotton Farmers and other business in Northern NSW/ QLD

WORKBOOK TOOL B2: EXPLORING THE OPPORTUNITIES

Explore the 3 main opportunities via this table. Consider the geographic area and timescale, the main drivers which would push this opportunity, who would be most affected, and who would need to be involved. Also discuss how the opportunity might be brought to reality.

	Example opportunity:	Your opportunity
Geographic area and timescale (e.g. is this a 10 year challenge? 50 year?)	e.g. To be developed within the next 2- 4years in Northern NSW in QLD	
What are the main drivers of this opportunity?	e.g. Adequate water allocations; New demand-supply chains for niche products	
Who is most affected by this opportunity?	e.g. Cotton Farmers and other business in Northern NSW/ QLD	
Who has to be involved to make this opportunity a reality?	e.g. cotton and other agricultural sectors, industry bodies and farmers/growers	
How can this opportunity be seized?	e.g. Stakeholders to establish working group to explore supply issues and product development, identify consumer markets, and plan for product distribution and marketing	

WORKBOOK TOOL B3: RANKING YOUR CHANGE SCENARIOS (optional)

Change scenarios	Short description	Participant rankings 3 points=most desirable, 1 point=least desirable									Total
		1	2	3	4	5	6	7	8	etc	
Change Scenario 1											
Change Scenario 2											
Change Scenario 3											

WORKBOOK TOOL B4: IDENTIFYING INCENTIVES

Can you identify the following incentives for change in relation to your change challenge	What is the local scale Incentive? (including farm scale)	What is the regional scale incentive?	What is the national scale incentive?	Other
Tax benefits				
Subsidies				
Structural adjustment				
Membership of decision-making bodies				
Opportunities to be engaged in policy development				
What other incentives are needed to support desired change?				

Questions for further discussion:

Which incentives do you think are the most important in relation to your desired change? What incentives are missing or needed?

WORKBOOK TOOL B5: ASSESSING AWARENESS (optional)

Can you identify the following awareness factors in relation to your change challenge?	Local (including farm scale)	Regional Scale	National Scale	Other
Public communication of science and innovation				
Mechanisms for industry and community engagement in government policy processes				
Mechanisms for sharing information between govts, industry and community				
Opportunities for training and skills development				
What other awareness factors are in place to support your desired change?				

Questions for further discussion:
Which awareness factors do you think are the most important in relation to your desired change? What awareness factors are missing or needed

Workbook tool B6: Reserves

What types of **social, natural and financial reserves** need to be maintained to enable adaptation, re-organisation, renewal?

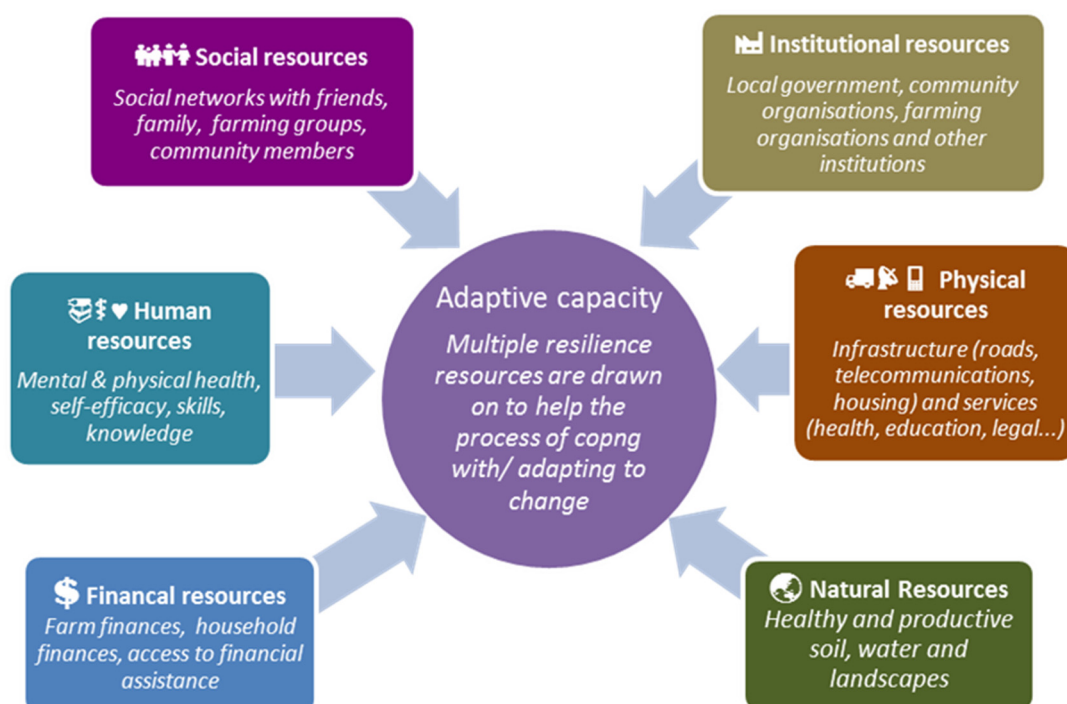| Can you identify the following reserves in relation to your change challenge?	Local (e.g. farm, town) scale	Regional scale	National scale	Other
Natural (ecological) give examples				
Economic				
Institutional				
Cultural				
Social				
What other reserves are in place to support your desired change?				

Questions for further discussion:
Which reserves do you think are the most important in relation to your desired change? What reserves are missing or needed?

WORKBOOK TOOL B7: RESOURCES

What types of **resources** need to be maintained to enable adaptation, re-organisation, renewal?

Can you identify the key resources in relation to your change challenge?	Local scale	Regional scale	National scale	Other

Questions for further discussion:
Which resources do you think are the most important in relation to your desired change? What resources are missing or needed?

Resilience Resources

Do you have access to resources you can draw on to help you cope with and adapt to change?

Resilience resources together provide you with 'adaptive capacity'. Are there areas where access to the resources could be improved?

Schirmer, J and Corocher, L (2018) Supporting farmer mental health through resilience interventions: *Measuring, monitoring and building resilience,* National Centre for Farmer Health Conference, 12 September 2018

WORKBOOK TOOL B8: GOVERNANCE

Can you identify the following governance factors in relation to your change challenge?	Local (e.g. farm) scale	Regional scale	National scale	Other
Regulatory arrangements				
Cross-jurisdictional decision making mechanisms				
Community/ stakeholder relations				
Supply chain management				
What other governance factors are in place to support your desired change?				

Questions for further discussion:
Which governance capacities do you think are the most important in relation to your desired change? What governance capacities are missing or needed?

WORKBOOK TOOL B9: PLANNING YOUR WORK TOGETHER

What do we need to do and how are we going to do it? In groups of 2-4, nominate the opportunity you're most interested in and work with the guiding questions and framework provided to develop a plan for working together to achieve change. Try to be as detailed as possible when developing your plan. Report back to the group.

What are some tangible actions?	Is this a local action? Or does it require action at 'other levels'? What are these levels? How do we connect?	Who needs to be involved to get this started?	When can we do this? (list short- and medium-term actions)	What are resources required – and where can we find them? (What support mechanisms are there already?)	Indicators of success – How do we you know that the action(s) are working?

Decision point	Guiding Questions	Your responses to questions
Should we act?	What is already happening (to support or move towards our desired change)? What initiatives? Projects? Alliances? Arrangements? Who is involved in these? And at what scale/s (local, regional, national, other)? What or who is/has the mandate for leading change in the area of our change challenge? What are the risks of NOT taking any action? How important are these risks? (For us? For our organization/s? For our communities?)	
How do we act?	Who needs to be involved in addressing our change challenge? Who are the most important stakeholders we need to work with? What mechanisms are there to support the key people and organizations to address the challenge together?	
How do we achieve our desired change?	What are the barriers in relation to our change challenge? How can we address these together? What process will we choose to achieve our desired change? e.g. (collaborative change management project; new group to undertake further action planning for change; community engagement process etc).	
What are the first actions we need to take?	How can we kick start action? What needs to / can happen within the next month?	

NEXT STEPS – COMMITTING TO ACTION

In closing your workshop, make sure each participant commits to one achievable action they are willing to take within in the next month. Examples for such actions could include: report on the workshop and suggested actions in your organisation; contact one or more of the identified additional stakeholders according to your level of influence.

Maintain momentum:

Decide on how the group participants will continue to maintain contact. Consider scheduling regular follow-up meetings to report on actions taken, potentially using selected workbook tools to review whether additional actions are needed. Convening a dedicated working group to coordinate decision-making and action outcomes might be required.

WORKBOOK TOOL C1: EVALUATION

Your feedback will help improve future workshops

Your name (optional): _____

Overall, how would you rate your workshop experience? (Please tick)

No value at all ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	Extremely valuable ☐

Please tick the appropriate box to indicate your response to each of the statements below:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
A. As a result of this workshop I have a good general understanding of the challenge we discussed	☐	☐	☐	☐	☐
B. I was able to share knowledge and experience relevant to the practical application of the change challenge	☐	☐	☐	☐	☐
C. I picked up new information or ideas from other participants	☐	☐	☐	☐	☐
D. The workshop generated insights that will be useful for me in future	☐	☐	☐	☐	☐
E. I feel hopeful about instigating an action in my community or beyond	.	.	.	.	.
F. The workshop was well organised and facilitated	☒	☐	☐	☐	☐

The most valuable aspects of the workshop for me were:

Was this discussion useful for exploring your change challenge? If so, why? If not, why not?

Was this discussion useful for identifying and planning future actions? If so, why? If not, what can be improved?

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